SNAP 2007 Combined paper Question Paper with Solutions

General Instructions

(i) This booklet contains 150 questions, each provided with a complete, step-by-step solution.

(ii) It comprises 150 single-correct multiple-choice questions.

(iii) Attempt each question on your own before reviewing the given solution.

. The leading brand of artificial sweetener in India, 'Sugar Free' is owned by

(A) Cipla

(B) Cadila

(C) Glaxo

(D) Monsanto

Correct Answer: (B) Cadila

Solution:

Step 1: Understanding the Question:

The question asks which company owns Sugar Free, the well known low calorie tabletop sweetener sold across India.

Step 2: Key Formula or Approach:

For this kind of brand ownership question, recall which parent group runs the consumer wellness division that actually makes the product, not just any large company in a related field.

Step 3: Detailed Explanation:

Sugar Free is manufactured and marketed in India by Zydus Wellness, the consumer health arm of the Cadila (Zydus) group.
The Sugar Free range covers tabletop sweeteners made from ingredients such as aspartame, sucralose and stevia, sold under sub brands like Sugar Free Gold and Sugar Free Natura.
Cipla makes inhalers, tablets and other pharma formulations, and has no ownership link to Sugar Free.
Glaxo, now part of GlaxoSmithKline, is known in India for products like Horlicks and Eno, not for a sweetener brand.
Monsanto works in seeds, pesticides and agri biotechnology, so a consumer sweetener brand does not fit its business at all.

Step 4: Final Answer:
Cadila (through its Zydus Wellness arm) owns the Sugar Free brand, so option (B) is correct.

Quick Tip: Think about which pharma linked group in India runs a separate consumer wellness company that sells tabletop sweeteners.

. Monsoon is caused by

(A) Movements of cloud

(B) Impact of Summer temperature on the sea

(C) Rise in temperature

(D) Seasonal reversal of winds

Correct Answer: (D) Seasonal reversal of winds

Solution:

Step 1: Understanding the Question:
The question asks for the basic cause behind the monsoon, the seasonal rain bearing wind system over regions like India.

Step 2: Key Formula or Approach:
A monsoon is defined in geography as a wind system that reverses direction between summer and winter, and this reversal is what brings and then withdraws the rains.

Step 3: Detailed Explanation:
In summer, land heats up faster than the sea, so a low pressure area forms over the Indian subcontinent while the ocean stays relatively high pressure.
Moist air then flows from the sea towards the land, and this onshore flow is the south west monsoon that brings heavy rain.
In winter, the land cools down faster than the sea, so high pressure builds over land and low pressure over the ocean, and the wind direction flips to blow from land to sea, giving the dry north east monsoon.
Movements of cloud and a rise in temperature are effects that come along with this process, not the root cause, so options (A) and (C) only describe symptoms.
The impact of summer temperature on the sea in option (B) is only half the picture, since it ignores the matching change in pressure over land and the resulting reversal of wind direction.

Step 4: Final Answer:
The defining cause of monsoons is the seasonal reversal of wind direction, so option (D) is correct.

Quick Tip: Recall that land and sea heat unevenly through the year, and this difference flips the wind direction each season.

. An Indian company manufacturing automobiles for Mitsubishi is

(A) Tata Motors

(B) Bajaj Tempo

(C) Mahindra

(D) Hindustan Motors

Correct Answer: (D) Hindustan Motors

Solution:

Step 1: Understanding the Question:
The question asks which Indian automobile company has a manufacturing tie up with the Japanese carmaker Mitsubishi.

Step 2: Key Formula or Approach:
This kind of question is answered by recalling classic OEM (original equipment manufacturer) partnerships between Indian and foreign carmakers, since many Indian brands grew through such tie ups.

Step 3: Detailed Explanation:
Hindustan Motors entered a technical and manufacturing collaboration with Mitsubishi Motors of Japan, and assembled Mitsubishi models such as the Lancer, and later the Pajero and Cedia, at its plant near Chennai.
Tata Motors builds its own range of passenger and commercial vehicles and has no Mitsubishi manufacturing tie up.

Bajaj Tempo, which later became Force Motors, focused on light commercial vehicles and utility vehicles, and never produced Mitsubishi passenger cars.
Mahindra's key overseas partnerships over the years have involved companies like Ford and SsangYong, not Mitsubishi, for car manufacturing in India.

Step 4: Final Answer:
Hindustan Motors is the Indian company that manufactured automobiles for Mitsubishi, so option (D) is correct.

Quick Tip: Think of the Indian carmaker that assembled the Mitsubishi Lancer in India.

. The name "Koneru Humpy" is associated with which of the following sport?

(A) Badminton

(B) Cricket

(C) Chess

(D) Weight Lifting

Correct Answer: (C) Chess

Solution:

Step 1: Understanding the Question:
The question asks which sport the name Koneru Humpy is linked with.

Step 2: Key Formula or Approach:
Match the person's name to the sport she is famous in, using her achievements as the clue.

Step 3: Detailed Explanation:
Koneru Humpy is an Indian chess player who became one of the youngest women to earn the Grandmaster title, and she has represented India in Chess Olympiads and top level FIDE events, later also winning the World Rapid Chess Championship.
Badminton in India is represented by players such as P. V. Sindhu and Saina Nehwal, not Koneru Humpy.
Cricket has its own set of well known Indian women players like Mithali Raj, and Koneru Humpy has no connection to that sport.
Weight lifting in India brings to mind athletes such as Mirabai Chanu, again a different field from chess.

Step 4: Final Answer:
Koneru Humpy is associated with chess, so option (C) is correct.

Quick Tip: She is one of India's youngest female Grandmasters in a board game, not a field sport.

. The new coin 'Rupiya' was issued for the first time by

(A) Sher Shah Suri

(B) Akbar

(C) Ala ud din Khilji

(D) Mohammed Shah Tughlaq

Correct Answer: (A) Sher Shah Suri

Solution:

Step 1: Understanding the Question:

The question asks which ruler first issued the silver coin known as the Rupiya.

Step 2: Key Formula or Approach:

Recall the medieval Indian ruler who is credited with currency and administrative reforms that introduced a standard silver coin.

Step 3: Detailed Explanation:

Sher Shah Suri, who ruled in the 16th century, introduced the Rupiya as a standardized silver coin weighing about 178 grains, roughly 11.5 grams, as part of a well organized tri metallic currency system that also had gold mohurs and copper dams.

This reform gave traders and the administration a consistent, trusted unit of currency, and the Mughals as well as the British later continued and adapted this same rupiya system.

Akbar carried forward and refined Mughal coinage, but he did not originate the rupiya, since it already existed from Sher Shah Suri's reign before him.

Ala ud din Khilji is remembered for market control policies and price regulation in the Delhi Sultanate, not for introducing the rupiya.

Muhammad bin Tughlaq is known for his token currency experiment using copper and bronze coins, which failed badly and is a completely different episode from the rupiya.

Step 4: Final Answer:

Sher Shah Suri issued the Rupiya for the first time, so option (A) is correct.

Quick Tip: Think of the 16th century ruler known for his tri metallic currency and administrative reforms.

. One of the following allows an individual to start and continue to share regularly any of his/her own personal experience, knowledge, opinion or thought with the internet community?

(A) Portal

(B) Email

(C) Blog

(D) Chat

Correct Answer: (C) Blog

Solution:

Step 1: Understanding the Question:

The question describes a tool that lets one person keep sharing personal experiences, knowledge, opinions or thoughts with the wider internet community on an ongoing basis.

Step 2: Key Formula or Approach:

Match this description to the correct internet term by checking whether each option is public, ongoing, and centered on one person's regular posts.

Step 3: Detailed Explanation:

A blog is exactly this kind of platform, a website where an individual publishes posts regularly, almost like an open diary, and readers can view and comment on the entries over time.

A portal is a gateway site such as a search or news portal that gives access to many different resources, and it is not built around one person's personal, repeated posting.
Email is meant for sending a message to specific people, so it does not work as a public, ongoing channel to the whole internet community.
Chat is real time and usually private, meant for quick back and forth conversation rather than long term published content.

Step 4: Final Answer:
A blog matches the description of ongoing personal sharing with the internet community, so option (C) is correct.

Quick Tip: Think of the online personal diary format that anyone on the internet can read and comment on.

. Phishing is

(A) A Govt. plan

(B) A stem cell

(C) A fraudulent way of getting the PIN and bank passwords using emails

(D) None of these

Correct Answer: (C) A fraudulent way of getting the PIN and bank passwords using emails

Solution:

Step 1: Understanding the Question:
The question asks for the correct definition of phishing.

Step 2: Key Formula or Approach:
Recall the standard cyber security meaning of phishing and match it to the option that describes fraud carried out through fake emails asking for confidential banking details.

Step 3: Detailed Explanation:
Phishing is a form of online fraud where attackers pretend to be a trusted organization, often a bank, and send emails that lead victims to fake websites or forms designed to steal PINs, passwords and other confidential details.
Option (A), a Govt. plan, is unrelated since phishing has nothing to do with any government scheme.
Option (B), a stem cell, is a biology term and has no connection to internet fraud at all.
Option (D), none of these, is wrong because option (C) already gives a correct and complete definition.

Step 4: Final Answer:
Phishing is a fraudulent way of getting PINs and bank passwords using emails, so option (C) is correct.

Quick Tip: Think of fake emails pretending to be from your bank, asking you to confirm your password or PIN.

. In the sports world, the sobriquet 'Indo-Pak Express' is applied to

(A) Shree Santh and Shoaib Akhtar

(B) Rohan Bopanna and Aisam-Ul-Haq Qureshi

(C) Sania Mirza and Shahar Peer

(D) Rohan Bopanna and Shahar Peer

Correct Answer: (B) Rohan Bopanna and Aisam-Ul-Haq Qureshi

Solution:

Step 1: Understanding the Question:
The question asks which pair of players is known by the nickname Indo-Pak Express.

Step 2: Key Formula or Approach:
Recall the tennis doubles pair from India and Pakistan who earned this nickname for playing together across the border rivalry.

Step 3: Detailed Explanation:
Rohan Bopanna, from India, and Aisam-Ul-Haq Qureshi, from Pakistan, formed a doubles partnership on the tennis circuit and became known as the Indo-Pak Express, a name that also carried a message of friendship between the two countries.
Sreesanth and Shoaib Akhtar are cricketers, one from India and one from Pakistan, but they are not linked by this particular nickname, since it belongs to the tennis pair.
Sania Mirza and Shahar Peer did play doubles together, but Shahar Peer is Israeli, so this pairing was never called Indo-Pak Express.
Rohan Bopanna and Shahar Peer is also not correct for the same reason, since Shahar Peer's nationality is Israel, not Pakistan, so the India-Pakistan pairing in the name does not apply here.

Step 4: Final Answer:

The Indo-Pak Express refers to Rohan Bopanna and Aisam-Ul-Haq Qureshi, so option (B) is correct.

Quick Tip: Look for the tennis doubles pair, one Indian and one Pakistani, famous for playing together despite the two countries' rivalry.

. A film that has not been directed by Mira Nair is

(A) Earth

(B) Monsoon Wedding

(C) Kamasutra

(D) Salaam Bombay

Correct Answer: (A) Earth

Solution:

This question checks how well you know the body of work of Mira Nair, the Indian-American director known for stories rooted in Indian social life told with a documentary-like realism.

1. **Earth**: This 1998 film is part of the Elements Trilogy (Fire, Earth, Water) made by Deepa Mehta, a different Indo-Canadian director. It was not made by Mira Nair.
2. **Monsoon Wedding**: Released in 2001, this ensemble drama about a Punjabi wedding in Delhi was directed by Mira Nair and won the Golden Lion at the Venice Film Festival.
3. **Kamasutra**: The 1996 period drama Kamasutra: A Tale of Love was also directed by Mira Nair.

4. **Salaam Bombay**: Mira Nair's 1988 debut feature about street children in Bombay was directed by her and earned an Academy Award nomination for Best Foreign Language Film.

Three of the four titles, Monsoon Wedding, Kamasutra, and Salaam Bombay, are Mira Nair films. Earth stands apart because Deepa Mehta made it, not Mira Nair.

Let's summarize:

- Mira Nair directed Salaam Bombay (1988), Kamasutra (1996), and Monsoon Wedding (2001).
- Earth (1998) belongs to Deepa Mehta's Elements Trilogy, a separate filmmaker entirely.

So the film not directed by Mira Nair is Earth, making option (A) the correct answer.

Quick Tip: Three of the four titles share the same director; find which one belongs to a different filmmaker (Deepa Mehta's Elements Trilogy).

. In banking terminology, CRR means

(A) Credit Reserve Ratio

(B) Cash Reserve Ratio

(C) Credit Rating Ratio

(D) Cash Rating Ratio

Correct Answer: (B) Cash Reserve Ratio

Solution:

Step 1: Understanding the Concept.
CRR is one of the main tools the Reserve Bank of India uses to manage how much money banks have available to lend. It stands for Cash Reserve Ratio.

Step 2: Key Formula or Approach.
CRR is the percentage of a bank's net demand and time liabilities (broadly, the deposits it holds) that it must keep as cash with the RBI, rather than lend out or invest.

Step 3: Detailed Explanation.
When the RBI raises the CRR, banks must park more cash with the central bank, leaving less money to lend to customers. This tightens liquidity and tends to cool down inflation.
When the RBI lowers the CRR, banks free up more cash to lend, which increases liquidity in the economy.
Checking the wrong options: "Credit Reserve Ratio" and "Credit Rating Ratio" are not standard RBI terms; credit rating relates to a borrower's creditworthiness, a completely different concept. "Cash Rating Ratio" mixes up two unrelated ideas and is not used in banking at all.

Step 4: Final Answer.
CRR is officially defined as the Cash Reserve Ratio, so option (B) is correct.

Quick Tip: Think of the "C" in CRR as standing for the physical cash banks must park with the RBI, not credit.

. Some of the large deals entered into by IT majors in India (all are billion dollar deals) are listed here as options. Which one is not?

(A) TCS-Nielson

(B) Tech Mahindra-BT

(C) Infosys-BN AM O

(D) IBM-Bharti

Correct Answer: (C) Infosys-BN AM O

Solution:

Step 1: Understanding the Question.
This question asks us to spot the outsourcing tie-up that does not belong on a list of genuine billion-dollar deals struck by Indian IT majors in the mid-2000s.

Step 2: Key Formula or Approach.
Since this is a memory-based current-affairs question, the way to solve it is to recall each named partnership and check whether it corresponds to a real, well-reported multi-year, billion-dollar contract.

Step 3: Detailed Explanation.
TCS-Nielsen: Tata Consultancy Services signed a large, long-term technology and business process outsourcing agreement with the market research firm Nielsen, a deal reported to be worth well over a billion dollars across its term.
Tech Mahindra-BT: Tech Mahindra itself grew out of a joint venture with British Telecom (BT), and BT remained its largest client for years, with contract values running into billions of dollars cumulatively.

IBM-Bharti: IBM signed a landmark ten-year deal with Bharti Airtel to manage its IT infrastructure, a contract widely reported at roughly a billion dollars.
Infosys-BN AM O: this pairing does not correspond to any confirmed, widely reported billion-dollar contract between Infosys and a company matching that name. Compared with the other three, well-documented deals, this entry does not hold up.

Step 4: Final Answer.
Since TCS-Nielsen, Tech Mahindra-BT, and IBM-Bharti are all real, well-known billion-dollar engagements while the Infosys pairing is not, option (C) is the one that is not a genuine billion-dollar deal.

Quick Tip: Three of the four pairings are real, widely reported billion-dollar contracts from the mid-2000s; one name does not match any confirmed deal.

. Suicide car bomb caused havoc in England in July 2007 at which airport?

(A) Glasgow

(B) Heathrow

(C) Birmingham

(D) Nottingham

Correct Answer: (A) Glasgow

Solution:

Step 1: Understanding the Question.
The question is testing recall of a specific terrorist incident from mid-2007, so we need to remember what happened and where.

Step 2: Key Formula or Approach.
Recall the sequence of events: a failed car-bomb plot in London was followed almost immediately by an attack on an airport terminal.

Step 3: Detailed Explanation.
On 30 June 2007, two car bombs were found in central London before they could detonate. The very next day, a Jeep Cherokee loaded with propane canisters was driven into the glass doors of the terminal building at Glasgow Airport in Scotland and set alight. Heathrow is London's busiest airport and a common distractor because of its size and profile, but it was not the site of this attack. Birmingham Airport and Nottingham (which does not even have a major international airport) are both unrelated to the incident and included only to test careful recall.

Step 4: Final Answer.
The airport attacked by the burning vehicle in this incident was Glasgow, so option (A) is correct.

Quick Tip: This attack happened just a day after a failed car-bomb plot in London, and it targeted a Scottish airport, not an English one.

. Pakistan has signed Free Trade Agreement (FTA) and a five-year investment package with

(A) USA

(B) European Union

(C) China

(D) Russia

Correct Answer: (C) China

Solution:

Step 1: Understanding the Question.

The question asks us to name the country with which Pakistan tied up a Free Trade Agreement along with a multi-year investment package, in the period leading up to the SNAP 2007 exam.

Step 2: Key Formula or Approach.

We need to recall Pakistan's major bilateral trade agreements active around 2006 to 2007, since FTAs of this scale are usually widely reported and remembered by their signing partner.

Step 3: Detailed Explanation.

Pakistan and China signed a Free Trade Agreement in 2006 that came into force in 2007, covering tariff reductions on a wide range of goods along with a five-year investment cooperation package, reflecting the two countries' close economic and strategic ties.

The USA has always been a major trading partner of Pakistan, but the two countries never signed a comprehensive FTA of this kind.

The European Union offered Pakistan preferential access under schemes like the Generalised System of Preferences (GSP), which is not the same as a formal FTA.

Russia's trade relationship with Pakistan in this period was comparatively limited and did not include an FTA of this scale.

Step 4: Final Answer.
The country that signed the FTA and five-year investment package with Pakistan was China, so option (C) is correct.

Quick Tip: Look for the trade partner that gave Pakistan a formally named FTA plus a specific five-year investment commitment, not just general trade ties.

. Major oil finds in India have been reported in

(A) Krishna Godavari Basin

(B) Cauvery Basin

(C) Rajasthan Desert

(D) Lower Assam Valley

Correct Answer: (A) Krishna Godavari Basin

Solution:

Step 1: Understanding the Question.
The question asks which region became known for major recent oil and gas discoveries in India, in the period leading up to 2007.

Step 2: Key Formula or Approach.
We need to think about which offshore or onshore basin was dominating headlines for large hydrocarbon finds in the mid-2000s.

Step 3: Detailed Explanation.
The Krishna Godavari (KG) Basin, off the coast of Andhra Pradesh, became the centre of India's biggest hydrocarbon story of the 2000s

after Reliance Industries discovered a massive natural gas field there, known as KG-D6, in 2002. ONGC also reported significant finds in the same basin. This made KG Basin the answer most strongly associated with "major recent oil finds" in that period.
The Cauvery Basin does hold some petroleum potential, but its finds were far smaller and less newsworthy compared to the KG Basin.
The Rajasthan Desert, particularly the Barmer fields explored by Cairn India, did yield oil, but this discovery, while notable, did not carry the same scale or prominence as the KG Basin gas find during this period.
The Lower Assam Valley has old, well-established oilfields like Digboi and Naharkatiya, but these are historic fields from decades earlier, not part of the "major" recent finds the question is pointing to.

Step 4: Final Answer.
The region most associated with major oil and gas finds in India around this period is the Krishna Godavari Basin, so option (A) is correct.

Quick Tip: Think of the offshore basin linked to Reliance's landmark natural gas discovery in the early 2000s.

. The propagation of radio signals is greatly influenced by

(A) Troposphere

(B) Ionosphere

(C) Exosphere

(D) Thermosphere

Correct Answer: (B) Ionosphere

Solution:

Step 1: Understanding the Concept.

Radio waves need to travel long distances, often beyond the visible horizon, and something in the atmosphere must help bend or bounce these waves back toward the Earth's surface for that to happen.

Step 2: Key Formula or Approach.

The relevant atmospheric layer is the one that contains free electrons and ions capable of reflecting radio waves, which is the ionosphere.

Step 3: Detailed Explanation.

The ionosphere sits roughly 60 to 1000 kilometres above the Earth's surface and gets ionised by solar radiation, meaning it is full of charged particles (electrons and ions).

When a radio wave, especially in the shortwave or high-frequency band, hits this layer, it gets reflected back down to Earth. This is what is called skywave propagation, and it lets radio signals travel far beyond the line of sight, bouncing between the ionosphere and the ground over long distances.

The troposphere is the lowest layer of the atmosphere, important for weather patterns and where aircraft fly, but it plays little role in long-range radio wave reflection.

The exosphere is the outermost, extremely thin layer of the atmosphere, with too few particles to meaningfully interact with radio waves.

The thermosphere physically overlaps with where the ionosphere sits, but the specific property that reflects radio waves is the ionisation, which is why the layer is named and studied as the "ionosphere" for this purpose rather than the thermosphere.

Step 4: Final Answer.
The layer that most influences radio signal propagation is the ionosphere, so option (B) is correct.

Quick Tip: Match the word "ionosphere" with "ions", the charged particles that bounce radio waves back down to Earth.

. According to Dun and Bradstreet which one of the following is the largest employer among Indian ITeS and BPO companies?

(A) Genpact

(B) Accenture Services

(C) Wipro BPO

(D) IBM Daksh

Correct Answer: (A) Genpact

Solution:

Step 1: Understanding the Question.
The question asks us to recall which BPO company employed the most people in India, according to a Dun and Bradstreet industry ranking from around the time of the SNAP 2007 exam.

Step 2: Key Formula or Approach.
Since this is a business current-affairs fact, the way to answer it is to recall the reported employee headcounts of the major BPO players active in India during that period.

Step 3: Detailed Explanation.

Genpact began life as GE Capital International Services, an in-house unit set up by General Electric, before it spun off into an independent company. By the mid-2000s, it had built up one of the largest workforces in the Indian ITeS and BPO industry, spanning finance, accounting, analytics, and customer support services, which is why Dun and Bradstreet ranked it as the top employer in this space.
Accenture Services had a big India presence too, but its BPO headcount in India at that time trailed behind Genpact's.
Wipro BPO was a serious player in the sector, yet its numbers also fell short of Genpact's scale.
IBM Daksh, formed after IBM acquired the Indian BPO firm Daksh eServices, was significant but again smaller than Genpact when it came to total headcount.

Step 4: Final Answer.
The company identified by Dun and Bradstreet as the largest employer among Indian ITeS and BPO firms was Genpact, so option (A) is correct.

Quick Tip: This company started as GE's own captive back-office unit before spinning off independently, giving it a head start in headcount over its BPO rivals.

. "In God we trust, the rest have to bring data on the table." This statement was made by the famous industrialist

(A) J.R.D. Tata

(B) Aditya Birla

(C) Dhirubhai Ambani

(D) Narayan Murthy

Correct Answer: (D) Narayan Murthy

Solution:

Step 1: Understanding the Question.
The question asks which Indian industrialist is linked with the famous line "In God we trust, the rest have to bring data on the table." This line is a paraphrase of the well known management saying "In God we trust, all others bring data."

Step 2: Key Fact.
N.R. Narayana Murthy, the co-founder of Infosys, is widely quoted using this exact line in speeches and interviews. He built Infosys on principles of transparency, corporate governance and decisions backed by facts rather than opinion, and this quote is one of his best known lines on that theme.

Step 3: Checking the other options.
J.R.D. Tata is remembered for building the Tata Group and for his focus on employee welfare, not for this line.
Aditya Birla, founder of the Birla conglomerate that today carries his name, is known for expanding the group's industrial base, not for this quote.
Dhirubhai Ambani, founder of Reliance, is known for his bold entrepreneurial bets and building India's largest private company from scratch, again not the source of this particular line.

None of these three are associated with the data driven management philosophy this quote expresses.

Step 4: Final Answer.
The quote belongs to Narayan Murthy, so option (D) is correct.

Quick Tip: Think of the Infosys co-founder known for stressing transparency and fact based decisions in corporate governance.

. The runner-up in the recent Vice-Presidential election was

(A) Mr. Bhairon Singh Shekhawat

(B) Dr. Najma Heptullah

(C) Mr. Praful Patel

(D) Mr. Hameed Ansari

Correct Answer: (B) Dr. Najma Heptullah

Solution:

Step 1: Understanding the Question.
This question is about the Vice-Presidential election that took place just before this paper was set, in August 2007. It asks who came second, that is the runner up, in that contest.

Step 2: Key Fact.
The 2007 Vice-Presidential election was fought between Mohammad Hamid Ansari, who was backed by the UPA, and Dr. Najma Heptulla, who contested as the NDA candidate.

Step 3: Detailed Explanation.
Hamid Ansari won the election with a comfortable majority and went on to serve two terms as Vice-President of India from 2007 to 2017.
Dr. Najma Heptulla lost the contest and so was the runner-up, even though she polled a respectable number of votes as the opposition nominee.
Mr. Bhairon Singh Shekhawat was the outgoing Vice-President at that time and was not a candidate in this particular election.
Mr. Praful Patel was a Union minister in that period and had no role as a candidate in the Vice-Presidential poll.

Step 4: Final Answer.
The runner-up was Dr. Najma Heptulla, so option (B) is correct.

Quick Tip: Recall who contested against Hamid Ansari in the 2007 Vice-Presidential race and lost.

. Which of the following is not provided in the constitution?

(A) Election Commission

(B) Planning Commission

(C) Public Service Commission

(D) Finance Commission

Correct Answer: (B) Planning Commission

Solution:

Step 1: Understanding the Question.
The question asks which of the four listed bodies does not have its

origin written into the Constitution of India.

Step 2: Key Fact.
Three of the bodies are constitutional bodies, meaning the Constitution itself creates them and lays down their powers: the Election Commission under Article 324, the Public Service Commissions under Articles 315 to 323, and the Finance Commission under Article 280.

Step 3: Detailed Explanation.
The Planning Commission does not appear in any Article of the Constitution. It was set up in 1950 by a simple resolution of the Cabinet, which makes it an extra-constitutional or executive body, not a constitutional one.
Because it was created by an executive order and not by the Constitution, it could later be dissolved and replaced without a constitutional amendment, which is exactly what happened when it was replaced by the NITI Aayog in 2015.
The other three bodies, being rooted in specific Articles, cannot be removed as easily since doing so would require a constitutional amendment.

Step 4: Final Answer.
The body not provided for in the Constitution is the Planning Commission, so option (B) is correct.

Quick Tip: Match each body to its Article; the one with no Article behind it was only formed by a government resolution.

. When did Governor General's rule end in India?

(A) 15th August 1947

(B) 9th August 1948

(C) 26th January 1950

(D) 2nd October 1950

Correct Answer: (C) 26th January 1950

Solution:

Step 1: Understanding the Question.
This question asks for the exact date on which India stopped having a Governor General as its constitutional head and moved to a different form of headship.

Step 2: Key Fact.
On 15th August 1947, India became independent, but it did not immediately become a republic. It stayed a dominion within the British Commonwealth, with a Governor General as the formal head of state, representing the British Crown.

Step 3: Detailed Explanation.
Lord Mountbatten was the first Governor General of independent India, followed by C. Rajagopalachari, the only Indian to hold that post.
This dominion arrangement continued for about two and a half years while the Constituent Assembly finished drafting the Constitution of India.
On 26th January 1950, the new Constitution came into force, India became a sovereign republic, and the post of Governor General was abolished. Dr. Rajendra Prasad took over as the first President of

India on that day.
15th August 1947 only marks independence, not the end of the Governor General's post, so option (A) is a common trap.
9th August 1948 and 2nd October 1950 do not correspond to any change in the head of state and are simply distractor dates.

Step 4: Final Answer.
The Governor General's rule ended on 26th January 1950, so option (C) is correct.

Quick Tip: Separate independence day from the day India actually became a republic with a President.

. The newspaper which was recently voted as the largest selling newspaper in the world is

(A) The Los Angeles Times

(B) The Times of India

(C) The London Times

(D) The New York Times

Correct Answer: (B) The Times of India

Solution:

Step 1: Understanding the Question.
The question asks to identify the newspaper that had recently been ranked as the largest selling paper in the world at the time this paper was set, in 2007.

Step 2: Key Fact.
Circulation surveys around that period placed The Times of India, published by The Times Group, as the largest selling English language broadsheet daily in the world, on the back of its huge readership across Indian metros and cities.

Step 3: Detailed Explanation.
The Los Angeles Times has a strong readership within the United States, but its circulation figures are far smaller than those of a national Indian daily reaching a market of over a billion people.
The London Times, despite its long history and international reputation, sells in far smaller numbers than The Times of India.
The New York Times is one of the most respected papers globally for its journalism, but respect and prestige are not the same as raw circulation numbers, and it also trails The Times of India in copies sold per day.
Only The Times of India combines a very large, English reading urban population with an aggressive multi-edition print strategy, which pushed its numbers ahead of every other English daily in the world.

Step 4: Final Answer.
The paper voted the largest selling newspaper in the world is The Times of India, so option (B) is correct.

Quick Tip: Think in terms of copies sold per day, and remember India's huge English reading population.

. Which of the following countries is the top source of FDI inflows into India at present?

(A) Singapore

(B) USA

(C) UK

(D) Mauritius

Correct Answer: (D) Mauritius

Solution:

Step 1: Understanding the Question.
The question asks which country, as of the time this paper was written, sent in the largest share of Foreign Direct Investment into India.

Step 2: Key Fact.
For many years leading up to 2007, Mauritius was the single largest source of FDI inflows into India, not because of the size of its own economy, but because of the India-Mauritius Double Taxation Avoidance Agreement (DTAA).

Step 3: Detailed Explanation.
Under this treaty, capital gains earned by an investor routed through Mauritius were taxed in Mauritius rather than in India, and Mauritius levied little to no capital gains tax at that time.
This made Mauritius a preferred route for both foreign and even round-tripped Indian money to enter India, inflating its share of recorded FDI far beyond what its small economy would suggest.
Singapore also became a major channel for similar treaty benefits, but its share stayed behind that of Mauritius during this period.
The USA and UK are large investors in India in absolute economic terms, but a much smaller part of their investment was structured to

flow in as classified FDI, so their official FDI shares were smaller than Mauritius's.

Step 4: Final Answer.
The top source of FDI into India at that time was Mauritius, so option (D) is correct.

Quick Tip: Think about which country's tax treaty with India made it a favourite route for investment, not which country is economically biggest.

. The human cell contains

(A) 44 chromosomes

(B) 48 chromosomes

(C) 46 chromosomes

(D) 23 chromosomes

Correct Answer: (C) 46 chromosomes

Solution:

Step 1: Understanding the Question.
The question asks for the normal chromosome number found in a human body cell.

Step 2: Key Fact.
A human somatic cell, that is, any ordinary body cell other than a sperm or egg cell, is diploid, meaning it carries two complete sets of chromosomes, one set inherited from each parent.

Step 3: Detailed Explanation.

Each parent contributes 23 chromosomes through the sperm or the egg, and when these two haploid sets combine at fertilisation, the resulting cell carries 23 + 23 = 46 chromosomes, arranged as 23 homologous pairs.

Every somatic cell formed afterwards by cell division copies this same number, so it also carries 46 chromosomes.

44 chromosomes would mean one pair is missing, which does not describe a normal human cell.

48 chromosomes is the diploid number seen in some other primates, such as chimpanzees, not in humans.

23 chromosomes is the haploid number found only in the reproductive cells, sperm and egg, before fertilisation, not in a normal body cell.

Step 4: Final Answer.

The human body cell contains 46 chromosomes, so option (C) is correct.

Quick Tip: Remember the difference between a body cell (diploid) and a sperm or egg cell (haploid).

. In year 2006, the three largest economies in the world were

(A) USA, Japan & Germany

(B) USA, China & Japan

(C) USA, UK & Germany

(D) USA, UK & France

Correct Answer: (A) USA, Japan & Germany

Solution:

Step 1: Understanding the Question.

The question asks for the ranking of the world's three biggest economies specifically in the year 2006, measured by nominal Gross Domestic Product.

Step 2: Key Fact.

In 2006, the global economic ranking by nominal GDP placed the United States first by a wide margin, followed by Japan in second place, and Germany in third place.

Step 3: Detailed Explanation.

China's economy was growing very fast through the 2000s, but in 2006 it was still smaller than Germany's economy in nominal dollar terms. China only overtook Germany to become the world's third largest economy in 2007, and later overtook Japan itself around 2010.

The UK and France both had large, developed economies in 2006, but their nominal GDP was smaller than Germany's, so neither belongs in the top three for that year.

This means option (B), which places China in the top three for 2006, is a year too early, since that shift happened only in 2007.

Options (C) and (D), which drop Japan in favour of the UK or France, are also incorrect because Japan's economy was still comfortably the world's second largest in 2006.

Step 4: Final Answer.

The three largest economies in 2006 were USA, Japan and Germany, so option (A) is correct.

Quick Tip: Remember China overtook Germany only in 2007, so in 2006 the podium was still USA, Japan, Germany.

. Identify an entry that is reversed in terms of the forex rates for US Dollar on a day recently.

(A) 1 US $ = Rs. 39.35

(B) 1 US $ = € 1.42

(C) 1 US $ = £ 0.48

(D) 1 US $ = ¥ 114

Correct Answer: (B) 1 US $ = € 1.42

Solution:

This question checks whether you can read a foreign exchange quote the right way round. A quote like "1 US $ = X units of currency Y" tells you how many units of Y you get for one dollar. If a currency is stronger than the dollar, you need fewer than 1 unit of it to equal a dollar, not more.

1. **1 US $ = Rs. 39.35**: In the mid-2000s, the rupee traded at around Rs 39 to 40 per dollar. Since the rupee is a weaker currency than the dollar, it takes many rupees to buy one dollar. This entry reads correctly.
2. **1 US $ = € 1.42**: The euro has traded stronger than the dollar for most of its history, generally needing only about 0.70 to 0.75 dollars-worth of euro to equal one dollar. In other words, one euro was worth roughly 1.35 to 1.42 dollars, not the other way round. So the correct statement should read "1 Euro = 1.42

US ", *not* "1 *US* = 1.42 Euro". This entry has the two currencies swapped.

3. **1 US $ = £ 0.48**: The British pound is also stronger than the dollar, with 1 pound worth around 2 dollars at the time. So one dollar equals roughly half a pound, close to 0.48. This entry reads correctly.
4. **1 US $ = ¥ 114**: The Japanese yen is a weaker currency unit, and one dollar bought well over 100 yen through the mid-2000s. This entry reads correctly.

Only the euro entry has the exchange rate written backwards: it should state how many dollars one euro buys, not the other way round. Everywhere else in the list, the pattern "1 dollar = many units of a weaker currency" or "1 dollar = a fraction of a unit of a stronger currency" holds true.

Let's summarize:

- Rupee and yen are weaker than the dollar, so one dollar buys many of them, and both entries are consistent.
- Pound and euro are stronger than the dollar, so one dollar should buy less than one unit of either, but only the pound entry respects this, while the euro entry has been flipped.

The reversed entry is option (B), "1 US $ = € 1.42".

Quick Tip: Compare each currency's real-world strength against the dollar: a stronger currency should need less than 1 unit per dollar, not more.

. Starbucks, the coffee chain retailer's name is inspired from which book?

(A) The Scarlet Letter

(B) Moby Dick

(C) Uncle Tom's Cabin

(D) None of the above

Correct Answer: (B) Moby Dick

Solution:

This question tests general awareness about the origin of a well known global brand name. Starbucks is one of the most recognisable coffee chains in the world, and its name has a literary root rather than a marketing-agency invention.

1. **The Scarlet Letter**: This is Nathaniel Hawthorne's novel about Puritan New England and has no connection to coffee, ships, or trade. It is not the source of the Starbucks name.
2. **Moby Dick**: This is Herman Melville's novel about the whaling ship Pequod and its obsessed captain, Ahab. One of the key characters aboard the ship is the first mate, named Starbuck. The founders of the coffee chain picked this name because it evoked the romance of early seafaring coffee and tea traders, which fit the brand they wanted to build in Seattle in 1971.
3. **Uncle Tom's Cabin**: This is Harriet Beecher Stowe's anti-slavery novel from the 1850s. It has no link to the coffee trade or the Starbucks name.
4. **None of the above**: This is wrong because a definite literary source does exist, so this option cannot be correct.

The name traces directly back to the first mate character Starbuck in Moby Dick, so the coffee chain's name, with an added "s", is a direct homage to that novel.

Let's summarize:

- Starbucks takes its name from Starbuck, the first mate of the Pequod in Herman Melville's Moby Dick.
- The other three options are famous novels but share no naming link with the coffee chain.

The correct answer is option (B), Moby Dick.

Quick Tip: Think of the first mate on Captain Ahab's ship in a famous whaling novel.

. A major US toy manufacturer which suffered a breakdown in supply chain from China on account of legally unacceptable toxic substances in its products is

(A) Leo Toys

(B) Mattel Toys

(C) Universal Toys

(D) Funskool Toys

Correct Answer: (B) Mattel Toys

Solution:

This question is about a major product-safety scandal that hit global headlines in 2007. It tests recall of a specific corporate news event rather than a general concept, so the key is remembering which company was at the centre of it.

1. **Leo Toys**: This is not a major US toy manufacturer associated with any large-scale global recall in 2007. It does not fit the scale of the event described.
2. **Mattel Toys**: Mattel, the maker of Barbie and Fisher-Price toys, is one of the largest toy companies in the world. In the summer of 2007, Mattel had to recall millions of toys made by its Chinese contract manufacturers because they used lead-based paint, which is toxic and not legally allowed in children's products in the US. A second wave of recalls also involved small, powerful magnets that could be swallowed. This became one of the biggest toy-safety scandals of the decade and badly disrupted Mattel's supply chain from China.
3. **Universal Toys**: This is not the company connected with the lead-paint recall crisis of 2007.
4. **Funskool Toys**: This is an Indian toy company, not a US manufacturer, and it was not involved in this China supply-chain scandal.

Given the scale of the crisis, the millions of units recalled, and the direct link to toxic lead paint from Chinese suppliers, the company in question is clearly Mattel.

Let's summarize:

- Mattel recalled millions of China-made toys in 2007 due to lead paint and small magnets.
- This event is widely cited as a landmark case in global supply-chain and product-safety failures.

The correct answer is option (B), Mattel Toys.

Quick Tip: Think of the maker of Barbie and Fisher-Price toys that recalled millions of China-made products over lead paint in 2007.

. Bollywood name has been granted as a trademark to which US-based Media and Entertainment company by Indian Trademark Registry?

(A) Viacom

(B) Universal Studios

(C) Disney Enterprises

(D) Miramax

Correct Answer: (C) Disney Enterprises

Solution:

This question is about a controversial trademark decision from the Indian Trademark Registry in the run-up to 2007. It tests whether you remember which foreign entertainment giant secured rights over a word that most people think of as belonging to the whole Hindi film industry, not to any single company.

1. **Viacom**: Viacom owns channels like MTV and Nickelodeon and has a strong presence in Indian media, but it was not the company that secured the "Bollywood" trademark from the Indian registry.
2. **Universal Studios**: Universal is a major Hollywood studio, but it is not linked to this particular trademark grant in India.
3. **Disney Enterprises**: Disney Enterprises, the US-based media and entertainment arm of the Walt Disney Company, was granted the trademark rights over the word "Bollywood" for use in India for media and entertainment purposes. This decision

drew sharp criticism because "Bollywood" is a widely used generic label for India's Hindi-language film industry as a whole, not a name owned by any one studio.

4. **Miramax**: Miramax is a well-known American film studio, but it is not the company that received this trademark from the Indian registry, even though Miramax has separately been involved in disputes over similar film-industry names in the past.

Because the controversy specifically centred on a Disney entity acquiring exclusive rights to a term the public sees as belonging to the whole industry, the correct company here is Disney Enterprises.

Let's summarize:

- The Indian Trademark Registry granted the "Bollywood" trademark to Disney Enterprises, a US media and entertainment company.
- This was controversial because Bollywood is treated as a generic industry name rather than a brand owned by one studio.

The correct answer is option (C), Disney Enterprises.

Quick Tip: Think of the US media giant behind Mickey Mouse that drew criticism for trademarking a word used for the whole Hindi film industry.

. Lakshmi Mittal, the famous NRI industrialist, is partnering with Govt. of India for which of the following big projects?

(A) Oil Refinery

(B) Atomic Power Plant

(C) Biotechnology

(D) Mining

Correct Answer: (A) Oil Refinery

Solution:

This question asks about a specific business collaboration between steel magnate Lakshmi Mittal and the Government of India, reported around 2007. The key is recalling which sector this partnership was actually in, since Mittal is popularly associated with steel, which can make people guess "Mining" by mistake.

1. **Oil Refinery**: Around this period, Lakshmi Mittal's business interests expanded beyond steel into energy, and he entered into talks and joint plans with the Government of India for setting up a large oil refinery project, reflecting India's growing need for refining capacity to meet rising fuel demand.
2. **Atomic Power Plant**: Mittal's businesses were not part of any atomic or nuclear power collaboration with the Government of India during this period.
3. **Biotechnology**: Mittal's core businesses are steel and, separately, energy-related ventures; biotechnology is unrelated to his known industrial focus.
4. **Mining**: While it is true that Mittal's steel business needs iron ore and therefore involves mining interests in a general sense, the specific big project he partnered with the Government of India on, as reported at the time, was the oil refinery project, not a standalone mining deal with the government.

Because the question is about a specific, named partnership with the Government of India rather than Mittal's general business interests, the correct match is the oil refinery project.

Let's summarize:

- Lakshmi Mittal partnered with the Government of India on a large oil refinery and related energy project.
- Mining is linked to his steel business in a general sense, but it is not the specific government partnership referred to here.

The correct answer is option (A), Oil Refinery.

Quick Tip: Look beyond Mittal's steel business to the energy-sector partnership he formed with the government around 2007.

. Tyeb Mehta, Nand Lal Bose and Majit Bewa are

(A) Classical Singers

(B) English Poets

(C) Photographers

(D) Painters

Correct Answer: (D) Painters

Solution:

This question checks whether you can identify a group of well-known names from the world of Indian art. All three names listed belong to painters who shaped modern Indian painting in different eras, so the category they share is painting, not music, poetry, or photography.

1. **Classical Singers**: None of Tyeb Mehta, Nandalal Bose, or Manjit Bawa (the names in the question, spelled slightly differently) were classical musicians. This option does not fit any of them.
2. **English Poets**: These three names belong to visual artists, not writers or poets working in English. This option is incorrect.
3. **Photographers**: None of them are known primarily for photography; their work was on canvas, not through a camera lens. This option does not match.
4. **Painters**: Tyeb Mehta was a leading figure of the Bombay Progressive Artists' Group, known for bold, expressive figurative paintings. Nandalal Bose was a pioneer of modern Indian art closely associated with Rabindranath Tagore's Santiniketan and created memorable artworks connected to the freedom movement, including illustrations for the original Constitution of India. Manjit Bawa was known for his vivid, folklore-inspired paintings using saturated colour fields. All three are celebrated Indian painters from different generations.

Since painting is the one category that correctly covers the work of all three artists, this is the right classification.

Let's summarize:

- Tyeb Mehta, Nandalal Bose, and Manjit Bawa are all major figures in modern Indian painting.
- None of them are associated with music, poetry, or photography as their primary craft.

The correct answer is option (D), Painters.

Quick Tip: Think of the shared art form behind these three well-known Indian names: canvas and colour, not music or the written word.

. Zapak Digital Entertainment (a gaming venture) belongs to which business group?

(A) UTV

(B) Balaji Telefilm

(C) Zee TV

(D) Anil Dhirubhai Ambani Enterprises

Correct Answer: (D) Anil Dhirubhai Ambani Enterprises

Solution:

This question checks awareness of which large Indian business house owned a popular online gaming portal launched in the mid-2000s. The clue is in matching the venture to the conglomerate that was diversifying heavily into digital media and entertainment at that time.

1. **UTV**: UTV was mainly focused on film production, television content, and later broadcasting, and it was not the parent of Zapak.
2. **Balaji Telefilm**: Balaji is known for producing television serials in India, not online gaming platforms, so it does not fit here.
3. **Zee TV**: Zee is primarily a television broadcasting network and channel operator, and it had no ownership link to Zapak.
4. **Anil Dhirubhai Ambani Enterprises**: Zapak Digital Entertainment, launched in 2006 as one of India's first large online gaming portals, was set up as part of the Reliance Anil Dhirubhai Ambani Group (Reliance ADAG). This group was

investing broadly in telecom, media, and entertainment ventures around that time, and Zapak was one of its digital entertainment initiatives.

Since Zapak's ownership traces directly to the Reliance ADAG umbrella rather than to any television or film-focused company, the correct group is Anil Dhirubhai Ambani Enterprises.

Let's summarize:

- Zapak Digital Entertainment was a gaming venture launched under the Reliance Anil Dhirubhai Ambani Group.
- UTV, Balaji Telefilm, and Zee TV are all established media companies but had no ownership stake in Zapak.

The correct answer is option (D), Anil Dhirubhai Ambani Enterprises.

Quick Tip: Think of the business group led by Anil Ambani that was expanding into digital and gaming ventures in the mid-2000s.

. In August 2007, Chennai High Court passed a landmark judgment that may have far reaching consequences on pharmaceuticals industry, dismissing a writ petition filed by

(A) Ranbaxy

(B) Sandoz

(C) Novartis

(D) Glaxo

Correct Answer: (C) Novartis

Solution:

This question is about a well-known Indian patent-law case from 2007 that had a major impact on how generic medicines are made available in India. The key is remembering which multinational pharmaceutical company filed the writ petition that was dismissed.

1. **Ranbaxy**: Ranbaxy is an Indian generic drug maker and was actually one of the companies that benefited from the outcome of this case, rather than the company that filed the petition against the law.
2. **Sandoz**: Sandoz is a generics arm of Novartis, but it was not the party that filed this particular writ petition before the Madras (Chennai) High Court.
3. **Novartis**: Novartis, the Swiss pharmaceutical multinational, had challenged Section 3(d) of the Indian Patents Act, which restricts patents on minor modifications of already known drugs, a practice often called evergreening. Novartis wanted patent protection in India for its anticancer drug Glivec (imatinib mesylate) and filed a writ petition arguing that Section 3(d) was unconstitutional and inconsistent with international trade rules. In August 2007, the Madras High Court dismissed this petition, upholding the validity of Section 3(d) and effectively protecting the ability of Indian companies to make affordable generic versions of many drugs.
4. **Glaxo**: GlaxoSmithKline is a major pharmaceutical company, but it was not the petitioner in this specific case before the Chennai High Court.

Because the Section 3(d) challenge and the Glivec patent dispute are specifically tied to Novartis in this period, the correct company is Novartis.

Let's summarize:

- Novartis challenged Section 3(d) of the Indian Patents Act in a bid to secure patent protection for Glivec.
- The Chennai (Madras) High Court dismissed this petition in August 2007, a decision widely seen as a win for access to affordable generic medicines.

The correct answer is option (C), Novartis.

Quick Tip: Think of the Swiss drugmaker that fought, and lost, a court battle over patent rights for its cancer drug Glivec in India.

. The busiest port in the world today is

(A) Port of Rotterdam

(B) Port of Shanghai

(C) Port of Singapore

(D) Port of Dubai

Correct Answer: (C) Port of Singapore

Solution:

Step 1: Understanding the Question:
The question asks which port handled the highest container traffic among the options given, around the time this paper was published (2007).

Step 2: Key Fact or Approach:
A port's rank as "busiest" is decided by the volume of containers it

handles each year, measured in twenty foot equivalent units (TEUs).

Step 3: Detailed Explanation:
Through the early and mid 2000s, the Port of Singapore held the top spot in the world for container throughput, thanks to its location on the main shipping route between Europe and East Asia and its status as a transhipment hub.
Rotterdam was the leading port in Europe but had already fallen behind the major Asian ports in total volume by this time.
Shanghai was growing fast and did go on to overtake Singapore, but that happened only after 2010, so it was not yet the busiest port when this paper was set.
Dubai runs one of the busiest ports in the Middle East, yet its container volume was still well below that of Singapore.

Step 4: Final Answer:
The busiest port in the world at that time was the Port of Singapore, so option (C) is correct.

Quick Tip: Think about which port led the world in container traffic before Shanghai overtook it after 2010.

. In recent months the monks of Myanmar marched the streets of Yangon in hundreds

(A) To spread the message of peace

(B) To celebrate Buddha Purnima

(C) To protest against the government that was ruling

(D) To take the normal route for alms

Correct Answer: (C) To protest against the government that was ruling

Solution:

Step 1: Understanding the Question:
The question is about a real news event from 2007, when thousands of Buddhist monks marched through the streets of Yangon (Myanmar's largest city).

Step 2: Key Fact or Approach:
This event is known as the Saffron Revolution, named after the saffron colored robes worn by the monks who led the marches.

Step 3: Detailed Explanation:
The protests began in August 2007 after Myanmar's military government sharply raised fuel prices, which pushed up the cost of transport and daily goods for ordinary people.
Buddhist monks, who are deeply respected in Myanmar society, joined and then led the demonstrations, turning economic anger into a wider protest against the military junta's rule.
The marches were not about spreading a message of peace in a general sense, nor were they tied to the Buddha Purnima festival, and they were not a routine walk for collecting alms, so options (A), (B), and (D) describe normal religious practice, not the reason behind these specific marches.

Step 4: Final Answer:
The monks marched in protest against the ruling military government, so option (C) is correct.

Quick Tip: Recall the 2007 "Saffron Revolution" in Myanmar and what triggered it.

. To recover the national loss suffered by small investors in the IPO allotment scam from the National Securities Depository Services Ltd, Central Depository Services Ltd, and eight depository participants, a second interim order was passed by

(A) SEBI

(B) RBI

(C) FMI

(D) Supreme Court

Correct Answer: (A) SEBI

Solution:

Step 1: Understanding the Question:
The question refers to the IPO allotment scam of 2005-06, in which some people used many fake demat accounts to grab a larger share of shares meant for small retail investors.

Step 2: Key Fact or Approach:
In India, the securities market, including how shares are issued and allotted in an IPO, is regulated by the Securities and Exchange Board of India (SEBI).

Step 3: Detailed Explanation:
When the scam came to light, SEBI investigated National Securities Depository Ltd (NSDL), Central Depository Services Ltd (CDSL), and

several depository participants for allowing large numbers of benami (fictitious) demat accounts to be opened.
SEBI passed interim orders against these entities and individuals to freeze the illegal gains and protect the interests of genuine small investors, since this falls squarely within its role as the market regulator.
The Reserve Bank of India (RBI) regulates banks and the currency system, not the securities and IPO allotment process, so it would not be the body passing such an order.
"FMI" is not a recognised regulatory authority connected to this case, and the Supreme Court only steps in when a case reaches it through litigation, not as the primary regulator issuing interim market orders.

Step 4: Final Answer:
The second interim order in the IPO allotment scam was passed by SEBI, so option (A) is correct.

Quick Tip: Think about which regulator oversees India's stock and depository system.

. Indian Broadcasting Service was renamed in 1936 as

(A) Kshwani

(B) Nabhowani

(C) Doorwani

(D) All India Radio

Correct Answer: (D) All India Radio

Solution:

Step 1: Understanding the Question:
The question asks for the new name given to India's Indian Broadcasting Service (IBS) in the year 1936.

Step 2: Key Fact or Approach:
Radio broadcasting in India started under private control in 1927 and was taken over by the government in 1930, when it was named the Indian State Broadcasting Service and later the Indian Broadcasting Service.

Step 3: Detailed Explanation:
In 1936, the Indian Broadcasting Service was officially renamed All India Radio (AIR), which became the national public radio broadcaster and continues to operate under that name today, also known by its Hindi name Akashvani since 1957.
"Kshwani", "Nabhowani", and "Doorwani" are not names that were historically used for this service; "Doorwani" in particular is close in sound to Doordarshan, which is the separate name given to India's television broadcaster launched later, in 1959.

Step 4: Final Answer:
The Indian Broadcasting Service was renamed All India Radio in 1936, so option (D) is correct.

Quick Tip: This is the broadcaster now known by its Hindi name Akashvani.

. Which of the following is not a principal organ of the UNO?

(A) General Assembly

(B) Trusteeship Council

(C) Security Council

(D) World Health Organization

Correct Answer: (D) World Health Organization

Solution:

Step 1: Understanding the Question:
The question asks to pick the option that is not one of the main structural bodies of the United Nations.

Step 2: Key Fact or Approach:
The United Nations Charter sets up six principal organs: the General Assembly, the Security Council, the Economic and Social Council, the Trusteeship Council, the International Court of Justice, and the Secretariat.

Step 3: Detailed Explanation:
The General Assembly is where all member states meet and vote, so it is a principal organ, ruling out option (A).
The Trusteeship Council was set up to oversee trust territories moving towards self government, so it is also a principal organ, ruling out option (B).
The Security Council, responsible for maintaining international peace and security, is likewise one of the six principal organs, ruling out option (C).
The World Health Organization, in contrast, is a specialised agency that works under the UN system on global health matters, but it is not one of the six bodies created directly by the UN Charter as a principal

organ.

Step 4: Final Answer:
The World Health Organization is not a principal organ of the UNO, so option (D) is correct.

Quick Tip: Separate the UN's six founding organs from its specialised agencies like WHO.

. Who was the composer of the classical composition 'Moonlight Sonata'?

(A) Ludwig Van Beethoven

(B) Joseph Haydn

(C) Johann Bach

(D) Handel

Correct Answer: (A) Ludwig Van Beethoven

Solution:

Step 1: Understanding the Question:
The question asks who composed the classical piano piece known as the "Moonlight Sonata".

Step 2: Key Fact or Approach:
The "Moonlight Sonata" is the popular name given to Piano Sonata No. 14 in C sharp minor, a work written for solo piano in 1801.

Step 3: Detailed Explanation:
This piece was composed by Ludwig Van Beethoven, one of the most

influential composers in the history of Western classical music, and it remains one of his best known works because of its slow, dreamlike opening movement, which later inspired the nickname "Moonlight".
Joseph Haydn was an important composer who taught and influenced the young Beethoven, but he did not write this particular sonata.
Johann Bach is celebrated for baroque era works such as fugues and concertos, from an earlier musical period, and had no connection to this piece.
Handel, another baroque composer, is best remembered for choral and orchestral works such as Messiah, not for this piano sonata.

Step 4: Final Answer:
The Moonlight Sonata was composed by Ludwig Van Beethoven, so option (A) is correct.

Quick Tip: This composer also wrote the famous Symphony No. 5 and Symphony No. 9.

. During the year 2006-07 Indian Railways earned a profit of approximately

(A) Rs. 20,000 crores

(B) Rs. 14,000 crores

(C) Rs. 18,000 crores

(D) Rs. 16,500 crores

Correct Answer: (A) Rs. 20,000 crores

Solution:

Step 1: Understanding the Question:
The question asks about the approximate profit earned by Indian Railways during the financial year 2006-07.

Step 2: Key Fact or Approach:
Around the mid 2000s, Indian Railways went through a widely reported financial turnaround, moving from years of losses and low surplus to record profit levels.

Step 3: Detailed Explanation:
Under the railway ministry of that period, changes such as better freight wagon utilisation, higher axle loads, and more flexible, demand based passenger fare and freight pricing raised revenue sharply without needing a big fare hike.
This turnaround was widely reported at the time as producing a profit of about Rs. 20,000 crores for the year 2006-07, a figure that was seen as remarkable for a government run rail network of that size.
The other figures listed, Rs. 14,000 crores, Rs. 18,000 crores, and Rs. 16,500 crores, are all lower than the actual reported number and do not match the figure that was widely cited in the press and in Parliament for that year.

Step 4: Final Answer:
Indian Railways earned an approximate profit of Rs. 20,000 crores in 2006-07, so option (A) is correct.

Quick Tip: This was the year Indian Railways' freight and pricing reforms made headlines for a record profit.

. Egg is a rich source of nutrients except

(A) Vitamin C

(B) Protein

(C) Vitamin D

(D) None of the above

Correct Answer: (A) Vitamin C

Solution:

Step 1: Understanding the Question:
The question asks which nutrient, among the ones listed, an egg does not provide in any meaningful amount.

Step 2: Key Fact or Approach:
An egg is often called a "complete food" because a single egg supplies high quality protein along with a range of vitamins and minerals.

Step 3: Detailed Explanation:
Eggs are a well known source of protein, since the egg white and yolk together provide all the essential amino acids the body needs, so option (B) is something an egg does supply.
Eggs also contain fat soluble vitamins such as Vitamin D, along with Vitamin A and several B complex vitamins, so option (C), Vitamin D, is also present in eggs.
Vitamin C, however, is a water soluble vitamin found mainly in citrus fruits and fresh vegetables, and eggs contain little to none of it, which is why a balanced diet pairs eggs with fruits or vegetables.
Since eggs genuinely lack Vitamin C, option (D), "None of the above", would be wrong, because there is in fact one nutrient among the choices that eggs do not supply.

Step 4: Final Answer:

Eggs are a rich source of nutrients except Vitamin C, so option (A) is correct.

Quick Tip: Think about which vitamin comes mainly from citrus fruits, not from animal foods.

.

Read the passage and answer the question that follows.

The world dismisses curiosity by calling it idle, or mere idle curiosity, even though curious persons are seldom idle. Parents do their best to extinguish curiosity in their children because it makes life difficult to be faced every day with a string of answerable questions about what makes fire hot or why grass grows. Children whose curiosity survives parental discipline are invited to join our university. Within the university, they go on asking their questions and trying to find the answers. In the eyes of a scholar, that is mainly what a university is for. Some of the questions that scholars ask seem to the world to be scarcely worth asking, let alone answering. They ask questions too minute and specialized for you and me to understand without years of explanation. If the world inquires of one of them why he wants to know the answer to a particular question, he may say, especially if he is a scientist, that the answer will in some obscure way make possible a new machine or weapon or gadget. He talks that way because he knows that the world understands and respects utility. But to you, who are now part of the university, he will say that he wants to know the answer simply because he does not know it, the way a mountain climber wants to climb a mountain simply because it is there. Similarly, a historian, when asked by outsiders why he studies history, may come out with an argument that he has learnt to repeat on such occasions, something about knowledge of the past making it possible to understand the present and mould the future. But if you really want to know why a historian studies the past, the answer is much simpler: something happened, and he would like to know what. All this does not mean that the answers which scholars find to their questions have no consequences. They may have enormous consequences, but these seldom form the reason for asking the question or pursuing the answers. It is true that scholars can be put to work answering questions for the sake of the consequences,

as thousands are working now, for example, in search of a cure for cancer. But this is not the primary function of the scholar, for the consequences are usually subordinate to the satisfaction of curiosity.

Q. Common people consider some of the questions asked by scholars as unimportant

(A) since they are not worth asking or answering

(B) because the question is related to new machines and gadgets

(C) because the common man doesn't understand questions without years of explanations

(D) scholars ask very minute, specialized questions beyond the comprehension of the common man

Correct Answer: (D) scholars ask very minute, specialized questions beyond the comprehension of the common man

Solution:

The question asks for the reason common people see some scholarly questions as unimportant, not just a restatement that they are unimportant. Go back to the line in the passage that gives the actual reason and check each option against it.

1. **Since they are not worth asking or answering**: This just repeats the idea in the question stem. It doesn't explain why the world thinks that. A restatement is not a reason, so this option does not answer the question being asked.
2. **Because the question is related to new machines and gadgets**: The passage mentions machines and gadgets only when a scientist gives the world a false, simplified reason for his research. It has nothing to do with why the public finds some questions unimportant.

3. **Because the common man doesn't understand questions without years of explanations**: This is close, since the passage does say the questions need years of explanation. But it leaves out the actual root cause given in the text, which is that the questions are too minute and specialized in the first place.
4. **Scholars ask very minute, specialized questions beyond the comprehension of the common man**: The passage says plainly, "They ask questions too minute and specialized for you and me to understand without years of explanation." This option captures both parts of that sentence, the specialization of the questions and the fact that they sit beyond ordinary comprehension.

Option 4 is the fullest and most accurate match for the passage's own explanation, so it is the correct answer.

Let's summarize:

- The passage explains that scholars' questions are dismissed because they are too narrow and technical for a layperson to grasp without long study.
- An option that only restates the question, or picks a minor detail like gadgets, does not count as the reason.

The correct option is that scholars ask very minute, specialized questions beyond the comprehension of the common man.

Quick Tip: Find the sentence right after the claim in the question stem; the reason usually follows immediately in the passage.

.

Read the passage and answer the question that follows.

The world dismisses curiosity by calling it idle, or mere idle curiosity, even though curious persons are seldom idle. Parents do their best to extinguish curiosity in their children because it makes life difficult to be faced every day with a string of answerable questions about what makes fire hot or why grass grows. Children whose curiosity survives parental discipline are invited to join our university. Within the university, they go on asking their questions and trying to find the answers. In the eyes of a scholar, that is mainly what a university is for. Some of the questions that scholars ask seem to the world to be scarcely worth asking, let alone answering. They ask questions too minute and specialized for you and me to understand without years of explanation. If the world inquires of one of them why he wants to know the answer to a particular question, he may say, especially if he is a scientist, that the answer will in some obscure way make possible a new machine or weapon or gadget. He talks that way because he knows that the world understands and respects utility. But to you, who are now part of the university, he will say that he wants to know the answer simply because he does not know it, the way a mountain climber wants to climb a mountain simply because it is there. Similarly, a historian, when asked by outsiders why he studies history, may come out with an argument that he has learnt to repeat on such occasions, something about knowledge of the past making it possible to understand the present and mould the future. But if you really want to know why a historian studies the past, the answer is much simpler: something happened, and he would like to know what. All this does not mean that the answers which scholars find to their questions have no consequences. They may have enormous consequences, but these seldom form the reason for asking the question or pursuing the answers. It is true that scholars can be put to work answering questions for the sake of the consequences,

as thousands are working now, for example, in search of a cure for cancer. But this is not the primary function of the scholar, for the consequences are usually subordinate to the satisfaction of curiosity.

Q. In the statement 'that is mainly what a university is for', 'that' refers to

(A) parents' refusal to answer questions

(B) children's curiosity that survives parents' strictures

(C) questions not worth answering

(D) the aim and scope of the university to provide an opportunity to curious minds to find out the answers to their questions

Correct Answer: (D) the aim and scope of the university to provide an opportunity to curious minds to find out the answers to their questions

Solution:

Step 1: Understanding the Question:
We need to find what the pronoun "that" stands for in the sentence "In the eyes of a scholar, that is mainly what a university is for."

Step 2: Key Approach:
A pronoun in a passage almost always points back to the idea stated just before it. Read the one or two sentences right before the pronoun and see which idea fits smoothly when substituted back in.

Step 3: Detailed Explanation:
The two sentences before this line say: "Children whose curiosity survives parental discipline are invited to join our university. Within the university, they go on asking their questions and trying to find the answers."
So the activity being described, right before "that", is students

continuing to ask questions and search for answers once they reach university.
Substitute this back into the sentence: "In the eyes of a scholar, [students asking questions and finding answers] is mainly what a university is for." This reads naturally and matches the author's argument in the rest of the passage.
Option 1 is wrong because the passage talks about parents trying to stop curiosity, not refusing to answer questions, and this idea is not what a university is "for".
Option 2 is about children's curiosity surviving discipline, which is a cause that lets a child reach university, not the definition of what a university itself is for.
Option 3 misreads the passage; nowhere does the author say a university exists for questions "not worth answering".

Step 4: Final Answer:
"That" refers to the university's purpose of giving curious young people the space to keep asking questions and search out the answers, which matches option 4.

The aim and scope of the university to let curious minds find answers to their questions

Quick Tip: Read the one or two sentences right before the pronoun "that"; it refers to the idea stated there.

.

Read the passage and answer the question that follows.

The world dismisses curiosity by calling it idle, or mere idle curiosity, even though curious persons are seldom idle. Parents do their best to extinguish curiosity in their children because it makes life difficult to be faced every day with a string of answerable questions about what makes fire hot or why grass grows. Children whose curiosity survives parental discipline are invited to join our university. Within the university, they go on asking their questions and trying to find the answers. In the eyes of a scholar, that is mainly what a university is for. Some of the questions that scholars ask seem to the world to be scarcely worth asking, let alone answering. They ask questions too minute and specialized for you and me to understand without years of explanation. If the world inquires of one of them why he wants to know the answer to a particular question, he may say, especially if he is a scientist, that the answer will in some obscure way make possible a new machine or weapon or gadget. He talks that way because he knows that the world understands and respects utility. But to you, who are now part of the university, he will say that he wants to know the answer simply because he does not know it, the way a mountain climber wants to climb a mountain simply because it is there. Similarly, a historian, when asked by outsiders why he studies history, may come out with an argument that he has learnt to repeat on such occasions, something about knowledge of the past making it possible to understand the present and mould the future. But if you really want to know why a historian studies the past, the answer is much simpler: something happened, and he would like to know what. All this does not mean that the answers which scholars find to their questions have no consequences. They may have enormous consequences, but these seldom form the reason for asking the question or pursuing the answers. It is true that scholars can be put to work answering questions for the sake of the consequences,

as thousands are working now, for example, in search of a cure for cancer. But this is not the primary function of the scholar, for the consequences are usually subordinate to the satisfaction of curiosity.

Q. According to the passage, the general public respects

(A) new inventions

(B) any useful invention

(C) any invention that makes life easier for them

(D) a scientist who invents gadgets and machines for them

Correct Answer: (B) any useful invention

Solution:

The passage tells us what the public values when a scientist explains his work to them. Match the exact word the author uses against each option.

1. **New inventions**: Being new is not the quality the passage highlights. An invention could be new but still useless, and the passage does not say the public respects newness for its own sake.
2. **Any useful invention**: The passage says, "He talks that way because he knows that the world understands and respects utility." Utility means usefulness, so this option matches the author's own word directly.
3. **Any invention that makes life easier for them**: This narrows utility down to only comfort or convenience. The passage's idea of utility is broader; it could include a new weapon, which does not necessarily make life easier.
4. **A scientist who invents gadgets and machines for them**: This shifts the respect from the invention's usefulness onto the

scientist as a person, which is not what the passage says. The public respects the quality of usefulness, not the inventor.

The correct option is that the general public respects any useful invention, since the passage states plainly that the world "understands and respects utility."

Let's summarize:

- Look for the exact noun the author uses, here "utility", and match it to the option using the same idea.
- Avoid options that narrow or shift the meaning, such as tying respect to comfort alone or to the inventor rather than the invention.

So the correct answer is that the public respects any useful invention.

Quick Tip: Find the sentence that uses the word "utility" and match its meaning to the closest option.

.

Read the passage and answer the question that follows.

The world dismisses curiosity by calling it idle, or mere idle curiosity, even though curious persons are seldom idle. Parents do their best to extinguish curiosity in their children because it makes life difficult to be faced every day with a string of answerable questions about what makes fire hot or why grass grows. Children whose curiosity survives parental discipline are invited to join our university. Within the university, they go on asking their questions and trying to find the answers. In the eyes of a scholar, that is mainly what a university is for. Some of the questions that scholars ask seem to the world to be scarcely worth asking, let alone answering. They ask questions too minute and specialized for you and me to understand without years of explanation. If the world inquires of one of them why he wants to know the answer to a particular question, he may say, especially if he is a scientist, that the answer will in some obscure way make possible a new machine or weapon or gadget. He talks that way because he knows that the world understands and respects utility. But to you, who are now part of the university, he will say that he wants to know the answer simply because he does not know it, the way a mountain climber wants to climb a mountain simply because it is there. Similarly, a historian, when asked by outsiders why he studies history, may come out with an argument that he has learnt to repeat on such occasions, something about knowledge of the past making it possible to understand the present and mould the future. But if you really want to know why a historian studies the past, the answer is much simpler: something happened, and he would like to know what. All this does not mean that the answers which scholars find to their questions have no consequences. They may have enormous consequences, but these seldom form the reason for asking the question or pursuing the answers. It is true that scholars can be put to work answering questions for the sake of the consequences,

as thousands are working now, for example, in search of a cure for cancer. But this is not the primary function of the scholar, for the consequences are usually subordinate to the satisfaction of curiosity.

Q. The writer compares the scientist to

(A) a historian and a mountain climber

(B) a historian

(C) a mountain climber

(D) a scholar

Correct Answer: (A) a historian and a mountain climber

Solution:

Step 1: Understanding the Question:
We need to find every figure the author uses to describe the scientist's motive for wanting to know an answer.

Step 2: Key Approach:
Scan the passage for direct comparisons, usually signalled by phrases like "the way" or "similarly", right after the scientist is discussed.

Step 3: Detailed Explanation:
The passage says the scientist wants to know the answer "simply because he does not know it, the way a mountain climber wants to climb a mountain simply because it is there." That is the first comparison, to a mountain climber.
The very next sentence begins, "Similarly a historian when asked by outsiders why he studies history...", explicitly using the word "similarly" to extend the same comparison to a historian.
So the passage gives two separate figures for the same idea, the mountain climber and the historian, both of whom act out of pure

curiosity rather than for practical results.
Option 2 alone and option 3 alone are each only half of the full comparison, so they are incomplete.
Option 4, "a scholar", is too general; the passage uses "scholar" as the larger category that includes scientists and historians, not as a separate comparison.

Step 4: Final Answer:
The writer compares the scientist to both a mountain climber and a historian.

A historian and a mountain climber

Quick Tip: The passage draws two comparisons in a row, one right after the other, linked by the word "similarly".

.

Read the passage and answer the question that follows.

The world dismisses curiosity by calling it idle, or mere idle curiosity, even though curious persons are seldom idle. Parents do their best to extinguish curiosity in their children because it makes life difficult to be faced every day with a string of answerable questions about what makes fire hot or why grass grows. Children whose curiosity survives parental discipline are invited to join our university. Within the university, they go on asking their questions and trying to find the answers. In the eyes of a scholar, that is mainly what a university is for. Some of the questions that scholars ask seem to the world to be scarcely worth asking, let alone answering. They ask questions too minute and specialized for you and me to understand without years of explanation. If the world inquires of one of them why he wants to know the answer to a particular question, he may say, especially if he is a scientist, that the answer will in some obscure way make possible a new machine or weapon or gadget. He talks that way because he knows that the world understands and respects utility. But to you, who are now part of the university, he will say that he wants to know the answer simply because he does not know it, the way a mountain climber wants to climb a mountain simply because it is there. Similarly, a historian, when asked by outsiders why he studies history, may come out with an argument that he has learnt to repeat on such occasions, something about knowledge of the past making it possible to understand the present and mould the future. But if you really want to know why a historian studies the past, the answer is much simpler: something happened, and he would like to know what. All this does not mean that the answers which scholars find to their questions have no consequences. They may have enormous consequences, but these seldom form the reason for asking the question or pursuing the answers. It is true that scholars can be put to work answering questions for the sake of the consequences,

as thousands are working now, for example, in search of a cure for cancer. But this is not the primary function of the scholar, for the consequences are usually subordinate to the satisfaction of curiosity.

Q. The primary function of a scholar is different from the search for a cure for cancer because

(A) the answers to the scholar's question have no consequence, unlike the results of the research involving a cure for cancer

(B) the answer sought by the scholar is selfish, unlike the consequences of cancer research which are for the common weal

(C) the primary function of a scholar is satisfaction of his mental curiosity, while research involving a cure for cancer demands a constant, systematic and planned pursuit by several scholars

(D) several scholars work for a cancer cure while a single scholar works with a selfish motive

Correct Answer: (C) the primary function of a scholar is satisfaction of his mental curiosity, while research involving a cure for cancer demands a constant, systematic and planned pursuit by several scholars

Solution:

This question asks about the distinction the author draws between a scholar's usual motive and the special case of scholars working toward a cure for cancer. Check each option against what the passage actually says about consequences and motive.

1. **The answers to the scholar's question have no consequence, unlike cancer cure results**: The passage directly contradicts this. It says a scholar's answers "may have enormous consequences", it only adds that consequences are not

the reason the scholar asks the question. So this option misstates the passage.

2. **The scholar's answer is selfish, unlike cancer research which is for the common weal**: The passage never calls the scholar's motive selfish. It only says the primary drive is curiosity, which is a neutral, not a selfish, motive in the author's framing.
3. **The primary function of a scholar is satisfaction of his mental curiosity, while cancer cure research demands a constant, systematic and planned pursuit by several scholars**: The passage says the scholar's primary function is the "satisfaction of curiosity", and separately notes cancer research is something "thousands are working" on, that is, a large, organized, ongoing group effort aimed squarely at a practical result. This option captures both halves of that contrast correctly.
4. **Several scholars work for a cancer cure while a single scholar works with a selfish motive**: This introduces the idea of a "selfish motive", which is not supported anywhere in the passage.

The correct option is that a scholar's primary function is to satisfy curiosity, while the hunt for a cancer cure is a large, planned, consequence-driven group effort, matching option 3.

Let's summarize:

- The passage never says a scholar's work has no consequences; it says consequences are not the reason for the work.
- The real contrast in the passage is between curiosity-driven individual pursuit and consequence-driven organized research, not between selfishness and public good.

So the correct answer is option 3.

Quick Tip: Look at the last two sentences of the passage, which directly compare curiosity to the cancer cure effort.

.

Read the passage and answer the question that follows.

The world dismisses curiosity by calling it idle, or mere idle curiosity, even though curious persons are seldom idle. Parents do their best to extinguish curiosity in their children because it makes life difficult to be faced every day with a string of answerable questions about what makes fire hot or why grass grows. Children whose curiosity survives parental discipline are invited to join our university. Within the university, they go on asking their questions and trying to find the answers. In the eyes of a scholar, that is mainly what a university is for. Some of the questions that scholars ask seem to the world to be scarcely worth asking, let alone answering. They ask questions too minute and specialized for you and me to understand without years of explanation. If the world inquires of one of them why he wants to know the answer to a particular question, he may say, especially if he is a scientist, that the answer will in some obscure way make possible a new machine or weapon or gadget. He talks that way because he knows that the world understands and respects utility. But to you, who are now part of the university, he will say that he wants to know the answer simply because he does not know it, the way a mountain climber wants to climb a mountain simply because it is there. Similarly, a historian, when asked by outsiders why he studies history, may come out with an argument that he has learnt to repeat on such occasions, something about knowledge of the past making it possible to understand the present and mould the future. But if you really want to know why a historian studies the past, the answer is much simpler: something happened, and he would like to know what. All this does not mean that the answers which scholars find to their questions have no consequences. They may have enormous consequences, but these seldom form the reason for asking the question or pursuing the answers. It is true that scholars can be put to work answering questions for the sake of the consequences,

as thousands are working now, for example, in search of a cure for cancer. But this is not the primary function of the scholar, for the consequences are usually subordinate to the satisfaction of curiosity.

Q. Idle curiosity means

(A) curiosity is lazy

(B) idle people are curious

(C) curiosity is apt

(D) casual curiosity

Correct Answer: (D) casual curiosity

Solution:

Step 1: Understanding the Concept:
The passage opens with the phrase "idle curiosity", used by "the world" as a dismissive label. We need the meaning of this exact phrase as the author uses it, not the dictionary meaning of "idle" in isolation.

Step 2: Key Approach:
Always check whether a word is being used literally or as part of an idiom in context. The very next clause in the passage, "even though curious persons are seldom idle", tells us how the author wants us to read the phrase.

Step 3: Detailed Explanation:
By saying curious persons are "seldom idle" right after using the phrase "idle curiosity", the author is pointing out that the word "idle" here does not literally describe a lazy person. It is the world's way of brushing off curiosity as trivial, casual, or without any serious purpose.

Option 1, "curiosity is lazy", takes "idle" in its literal sense of laziness, which the author's own next clause rules out.
Option 2, "idle people are curious", flips the phrase around into a claim about lazy people, which is not what "idle curiosity" describes at all.
Option 3, "curiosity is apt", uses a word, "apt", that means suitable or fitting, and has no real link to the passage's meaning.
Option 4, "casual curiosity", fits the sense of curiosity being written off as trivial or without serious purpose, which is exactly how the world dismisses it in the passage.

Step 4: Final Answer:
"Idle curiosity" in this passage means curiosity that is treated as casual or unimportant.

Casual curiosity

Quick Tip: The author immediately says curious people are "seldom idle", which rules out the literal meaning of laziness.

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Find the correct match of definition/meaning with usage for the word: WOULD

List I (Meaning)	List II (Usage)
1. Willingness	5. He would go for a walk even when it was raining.
2. Obstinacy / persistence	6. He would do as you say.
3. Determination	7. He beat the ox, but it wouldn't move.
4. Improbable or real condition	8. If you came across a snake, what would you do?

(A) 1-8, 2-5, 3-6, 4-6

(B) 1-6, 2-7, 3-5, 4-8

(C) 1-5, 2-7, 3-8, 4-6

(D) 1-7, 2-5, 3-6, 4-8

Correct Answer: (B) 1-6, 2-7, 3-5, 4-8

Solution:

Step 1: Understanding the Question:
"Would" changes its sense depending on the sentence it sits in. We have to match each of the four listed senses, willingness, obstinacy/persistence, determination, and improbable or real condition, to the sentence that actually demonstrates it.

Step 2: Key Approach:
Take each usage sentence one at a time and ask what job "would" or "wouldn't" is doing in it, then line it up with the meaning from the list that fits that job exactly.

Step 3: Detailed Explanation:
Sentence 6, "He would do as you say", shows the subject agreeing or being ready to comply, which is a textbook case of willingness. So meaning 1 matches usage 6.
Sentence 7, "He beat the ox, but it wouldn't move", uses "wouldn't" to show the ox refusing to budge no matter what was done to it. This stubborn refusal despite effort is exactly obstinacy or persistence in refusing. So meaning 2 matches usage 7.
Sentence 5, "He would go for a walk even when it was raining", describes a repeated, habitual action carried out regardless of a real obstacle, the rain. This steady, repeated choice to act despite difficulty is what "determination" describes here. So meaning 3 matches usage 5.
Sentence 8, "If you came across a snake, what would you do?", is a classic conditional sentence, asking what someone would do under a hypothetical circumstance. So meaning 4 matches usage 8.
Putting these together gives 1-6, 2-7, 3-5, 4-8.

Step 4: Final Answer:
The correct match is 1-6, 2-7, 3-5, 4-8, which is option 2.

1-6, 2-7, 3-5, 4-8

Quick Tip: Match "wouldn't move" to stubborn refusal, and "would do as you say" to willing agreement, then place the remaining two by elimination.

. Choose the most appropriate passive construction of the sentence: 'He is doing his job well.'

(A) His job is done well by him.

(B) His job is being done well.

(C) He has been doing his job well.

(D) His job is being well done.

Correct Answer: (B) His job is being done well.

Solution:

Step 1: Understanding the Question:
The given sentence, "He is doing his job well", is in the present continuous tense, active voice. We need its passive form, and the passive must keep the same tense as the original, not switch to a different one.

Step 2: Key Formula or Approach:
The passive of the present continuous tense follows the pattern: subject + is/am/are + being + past participle (+ by + agent, if needed). This is different from the simple present passive, which drops "being" and uses subject + is/am/are + past participle.

Step 3: Detailed Explanation:
In the active sentence, "his job" is the object and "he" is the subject. In the passive, "his job" becomes the new subject.
Applying the present continuous passive formula: "his job" + "is being done" + "well" gives "His job is being done well." This keeps the same continuous, ongoing sense as the original active sentence.
Now check the four options against this rule. Option 1, "His job is done well by him", uses the simple present passive ("is done"), which describes a general habit or fact, not an action in progress right now, so it changes the meaning and tense of the original sentence.

Option 3, "He has been doing his job well", is not passive at all; it keeps "he" as the subject doing the action, so it is still active voice in the present perfect continuous tense.
Option 4, "His job is being well done", does use the correct continuous passive structure, but it places the adverb "well" awkwardly between "being" and "done". Standard English places a manner adverb like "well" after the past participle, giving "is being done well", not before it.
Option 2, "His job is being done well", correctly keeps the continuous aspect with "being done" and places "well" in its natural position right after the participle.

Step 4: Final Answer:
The most appropriate passive form is "His job is being done well."

His job is being done well

Quick Tip: Keep the tense the same: present continuous active needs "is/are + being + past participle" in the passive, not simple present.

. There are three underlined words below, followed by their usages. Determine the sentences in which the use of words is correct or appropriate: **Pray**, **Prey**, **Prying**.

A. If you pray with faith, they say, it will be answered.
B. He has fallen a prey to cheats.
C. Prying into the affairs of others is bad.

(A) A and B

(B) A and C

(C) A, B and C

(D) B and C

Correct Answer: (C) A, B and C

Solution:

Step 1: Understanding the Concept.
This question checks whether three commonly confused words, pray, prey and prying, are used correctly in three separate sentences. Each word sounds close to the others but carries a different meaning, so the task is to match the word to its own sense in each line.

Step 2: Check statement A.
"Pray" is a verb that means to speak to God or to make an earnest request. In "If you pray with faith, they say, it will be answered," the word is used exactly in that devotional sense. This sentence is correct.

Step 3: Check statement B.
"Prey" is a noun that means a victim of a trick, attack, or hunt. The idiom "fall prey to" means to become a victim of something. "He has fallen a prey to cheats" uses this idiom correctly to say he became a victim of cheats. This sentence is correct.

Step 4: Check statement C.
"Prying" is the present participle of "pry," meaning to inquire too closely into someone else's private affairs. "Prying into the affairs of others is bad" uses the word correctly to describe nosy interference. This sentence is correct.

Final Answer:

All three sentences A, B and C use their underlined word correctly, so the right choice is option (C).

A, B and C

Quick Tip: Pray means to worship or ask; prey means a victim, as in fall prey to; prying means nosy interference. Check each sentence against its own meaning.

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Instructions (Q50-54): The following is an excerpt from a recent article by David Ewing Duncan. Read the passage and answer the questions within its context.

Eye surgeon Virendar Sangwan has perfected a procedure so cutting-edge that most who have tried it have failed. In an operating theatre in the central Indian city of Hyderabad, he surgically implants corneas grown in a petri dish from stem cells by his colleague Geeta Vemuganti in patients with damaged eyes. Together they perform about 80 corneal regeneration procedures a year, making the L.V. Prasad Eye Institute, where they work, one of the most prolific facilities in the world using stem cells to regenerate tissues of any kind.

The Sangwan-Vemuganti team uses stem cells found in the tissues of living adults, not ones derived from embryos. Teams all over the world are working with adult stem cells, trying to coax them to regrow cells in hearts, brains, livers and other organs, but progress is slow. Besides corneas, scientists have had some success regrowing skin cells and bone tissues, but those procedures remain experimental. "A number of programs around the world have tried to perfect this treatment, but they have had bad outcomes," says University of Cincinnati eye surgeon and stem cell specialist Edward Holland. "It is impressive what they are doing at Prasad." In addition to the Hyderabad project, only Holland's program and a half-dozen others in the world conduct operations using corneas grown from stem cells. The treatment uses stem cells harvested from the limbus, located where the cornea touches the white of the eye. For those with damaged corneas, these cells, called "limbic" and "conjunctiva", are harvested from a patient's good eye, if he has one, or from a close relative. They are placed in a petri dish and chemically tweaked to grow into the lower layer of a cornea, called epithelium. It is then transplanted into the eye of the patient where in most cases it takes hold and grows. In 56% of

the cases at the Prasad Institute, the patient could still see clearly 40 months later.

Indians are well known for reverse engineering, meaning they can deduce how drugs are made in order to produce generic versions. But in this case, Sangwan and Vemuganti, a pathologist, developed the technique on their own from reading papers and running experiments in the lab. Sangwan says he had a number of patients with burned eyes who could not be helped with standard corneal transplants from cadavers, so he persuaded Vemuganti to try growing corneas in her lab. "You know how to grow cells, and I know how to do the transplant surgery," Vemuganti recalls him saying. "Why don't we work together?" She smiles and shakes her head. "I had no clue if this was going to work." Vemuganti's major innovation was developing a platform on which to grow corneas. First she designed a circular glass tube about the size of a stack of coins. Then she overlaid the glass with tissue from a human placenta, which is "a good surface to grow corneas on," she says. After that she placed stem cells in four places around a circle, added a growth medium, and watched the corneas begin to grow. Commercial interest among stem cell companies for the procedure has been scant because of the perceived small volume of patients, says venture capitalist Antoun Nabhan, who sits on the board of Cellerant, a leading stem cell company in San Carlos, California. But corneal stem cell treatment may have wider applications, says ophthalmologist Ivan Schwab of the University of California at Davis. "These stem cells are similar to others in the body that make mucous membrane," he says. "These techniques of growing stem cells might one day be used to treat mucous-membrane tissue in the sinuses, bladder, and other organs."

Question: According to the article, Sangwan-Vemuganti team's cutting-edge procedure of implanting cornea grown from stem cells is considered a major advancement by the experts because

(A) They derive stem cells from embryos.

(B) Their labs are customised to grow stem cells.

(C) They regrow cells in hearts, brains, livers with stem cells from tissues of living adults.

(D) They derive stem cells from tissues of living adults and grow cells in labs.

Correct Answer: (D) They derive stem cells from tissues of living adults and grow cells in labs.

Solution:

Step 1: Understand what the question is asking.
The question asks why experts see the Sangwan-Vemuganti procedure as a major advance. The answer has to come straight from what the passage says makes their method different from other stem cell work happening elsewhere.

Step 2: Locate the relevant lines in the passage.
The passage says the team "uses stem cells found in the tissues of living adults, not ones derived from embryos," and that they grow these cells into working corneal tissue in the lab, with about 80 successful procedures a year.

Step 3: Match this against the options.
Option 1 is wrong because the passage explicitly rules out embryonic stem cells. Option 2 is wrong because the advance is not about customised labs, it is about the source and success of the cells. Option 3 is wrong because regrowing hearts, brains and livers is what other teams around the world are attempting with slow progress, not what Sangwan and Vemuganti achieved; their success is specifically with

corneas. Option 4 correctly states that they take stem cells from living adults and grow them into functioning tissue in the lab, which is exactly what the passage credits as the breakthrough.

Final Answer:
The team's advance lies in using adult, not embryonic, stem cells and successfully growing them into corneal tissue in the lab.

They derive stem cells from tissues of living adults and grow cells in labs

Quick Tip: Contrast the phrase "not ones derived from embryos" with what other teams elsewhere are attempting, and note the team's success is specific to corneas.

.

Instructions (Q50-54): The following is an excerpt from a recent article by David Ewing Duncan. Read the passage and answer the questions within its context.

Eye surgeon Virendar Sangwan has perfected a procedure so cutting-edge that most who have tried it have failed. In an operating theatre in the central Indian city of Hyderabad, he surgically implants corneas grown in a petri dish from stem cells by his colleague Geeta Vemuganti in patients with damaged eyes. Together they perform about 80 corneal regeneration procedures a year, making the L.V. Prasad Eye Institute, where they work, one of the most prolific facilities in the world using stem cells to regenerate tissues of any kind.

The Sangwan-Vemuganti team uses stem cells found in the tissues of living adults, not ones derived from embryos. Teams all over the world are working with adult stem cells, trying to coax them to regrow cells in hearts, brains, livers and other organs, but progress is slow. Besides corneas, scientists have had some success regrowing skin cells and bone tissues, but those procedures remain experimental. "A number of programs around the world have tried to perfect this treatment, but they have had bad outcomes," says University of Cincinnati eye surgeon and stem cell specialist Edward Holland. "It is impressive what they are doing at Prasad." In addition to the Hyderabad project, only Holland's program and a half-dozen others in the world conduct operations using corneas grown from stem cells. The treatment uses stem cells harvested from the limbus, located where the cornea touches the white of the eye. For those with damaged corneas, these cells, called "limbic" and "conjunctiva", are harvested from a patient's good eye, if he has one, or from a close relative. They are placed in a petri dish and chemically tweaked to grow into the lower layer of a cornea, called epithelium. It is then transplanted into the eye of the patient where in most cases it takes hold and grows. In 56% of

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Question: Sangwan-Vemuganti procedure is carried out on

(A) Patients requiring any corneal transplant

(B) Patients with damaged corneas

(C) Patients with damaged eyes of any kind

(D) None of the above

Correct Answer: (C) Patients with damaged eyes of any kind

Solution:

Step 1: Understand the question.
The question asks which group of patients the Sangwan-Vemuganti procedure is meant for, so the answer must match the exact patient group named in the passage, not a broader or narrower group.

Step 2: Find the exact phrase in the passage.
The passage states that Sangwan "surgically implants corneas grown in a petri dish from stem cells... in patients with damaged eyes." This is the direct description of who receives the procedure.

Step 3: Compare each option to this phrase.
Option 1 says "any corneal transplant," which is too broad, since the passage is about this specific stem-cell method, not every kind of corneal transplant. Option 2 narrows the group to only "damaged corneas," but the passage uses the wider phrase "damaged eyes." Option 3 matches the passage word for word: patients with damaged eyes. Option 4 is ruled out because option 3 is directly supported by the text.

Final Answer:
The passage names the patient group as those with damaged eyes, which is option 3.

Patients with damaged eyes of any kind

Quick Tip: Match the exact phrase in the passage, patients with damaged eyes, rather than a broader or narrower rewording.

.

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Question: The world recognises this Indian innovation because Indian scientists are normally known

(A) To be good at analysing and finding out a method of how an existing drug is made.

(B) As they are good researchers of drugs.

(C) As they are good at carrying out experiments to create generic drugs.

(D) As they are able to carry out drug trials on large samples.

Correct Answer: (A) To be good at analysing and finding out a method of how an existing drug is made.

Solution:

This question asks why the world takes special notice of what Sangwan and Vemuganti achieved, tying it to a reputation Indian scientists already have. The passage spells out that reputation in one sentence, so the task is to match it to the right option.

1. **To be good at analysing and finding out a method of how an existing drug is made**: The passage says "Indians are well known for reverse engineering, meaning they can deduce how drugs are made in order to produce generic versions." Deducing how something already made works is exactly analysing and finding out its method, so this matches.
2. **As they are good researchers of drugs**: This is too vague and is not what the passage credits Indians with; the text is specific about reverse engineering existing drugs, not general drug research.
3. **As they are good at carrying out experiments to create generic drugs**: This shifts the emphasis to the experiments themselves rather than the analytical skill of figuring out how a drug was made, which is the actual point the passage makes.
4. **As they are able to carry out drug trials on large samples**: Drug trials are not mentioned anywhere in the passage

in connection with this reputation.

Since reverse engineering means working backward from a finished drug to figure out its method of manufacture, the first option is the one that actually describes this skill.

Let's summarize:

- Reverse engineering is about analysing an existing product to find out how it was made, not inventing something new.
- The passage ties this reputation to producing generic drug versions after reverse engineering the originals.

The correct answer is that Indians are known for analysing and finding out the method behind an existing drug, option (A).

Quick Tip: Reverse engineering means working backward from a finished drug to figure out how it was made.

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Instructions (Q50-54): The following is an excerpt from a recent article by David Ewing Duncan. Read the passage and answer the questions within its context.

Eye surgeon Virendar Sangwan has perfected a procedure so cutting-edge that most who have tried it have failed. In an operating theatre in the central Indian city of Hyderabad, he surgically implants corneas grown in a petri dish from stem cells by his colleague Geeta Vemuganti in patients with damaged eyes. Together they perform about 80 corneal regeneration procedures a year, making the L.V. Prasad Eye Institute, where they work, one of the most prolific facilities in the world using stem cells to regenerate tissues of any kind.

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Question: The pathologist, Vemuganti, started growing cornea in a petri dish

(A) By following procedures published in research papers

(B) By inventing a totally new procedure

(C) By experimenting with procedures published in journals

(D) By following the instruction of the transplant surgeon

Correct Answer: (C) By experimenting with procedures published in journals

Solution:

Step 1: Understanding the Question.
The question asks how Vemuganti, the pathologist, actually arrived at her method for growing corneas in a petri dish, based on what the passage tells us about her process.

Step 2: Locate the relevant sentence.
The passage says Sangwan and Vemuganti "developed the technique on their own from reading papers and running experiments in the lab." This mentions two things together: reading published research and then testing it hands-on in the lab.

Step 3: Match this to the options.
Option 1 mentions only "following procedures published in research papers," which misses the hands-on experimentation part and makes it sound passive. Option 2, "inventing a totally new procedure," is wrong because the passage says they built on papers they had read, not something from nothing. Option 3, "experimenting with procedures published in journals," captures both halves correctly: procedures that came from published journal papers, tested through her own experiments. Option 4 is unsupported, since Vemuganti worked out the growing method herself; the surgeon only proposed

that they collaborate.

Final Answer:
Vemuganti combined reading published research with her own lab experiments, which matches option 3.

By experimenting with procedures published in journals

Quick Tip: The passage credits both reading published papers and running her own experiments; look for the option that keeps both parts.

.

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Eye surgeon Virendar Sangwan has perfected a procedure so cutting-edge that most who have tried it have failed. In an operating theatre in the central Indian city of Hyderabad, he surgically implants corneas grown in a petri dish from stem cells by his colleague Geeta Vemuganti in patients with damaged eyes. Together they perform about 80 corneal regeneration procedures a year, making the L.V. Prasad Eye Institute, where they work, one of the most prolific facilities in the world using stem cells to regenerate tissues of any kind.

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Question: In the context of the passage, choose the correct set of meanings for the words: **PLATFORM** and **GENERIC**

(A) Lab table; related to genes

(B) Method; related to genes

(C) Lab experiments; without a brand name

(D) Methodology; without a brand name

Correct Answer: (D) Methodology; without a brand name

Solution:

Step 1: Understanding the Question.
The question asks for the meaning of two words as they are actually used in the passage: "platform" and "generic." Both words have everyday meanings that do not fit here, so context has to decide the answer.

Step 2: Work out "platform" from its sentence.
The passage says Vemuganti's "major innovation was developing a platform on which to grow corneas," and then describes this platform as a whole system: a glass tube, a placenta tissue surface, and stem cells placed in a growth medium. This is a systematic procedure, so "platform" here means a method or methodology, not a physical stage or lab table.

Step 3: Work out "generic" from its sentence.
The passage talks about Indians producing "generic versions" of drugs through reverse engineering. In this drug context, "generic" means a version of a drug sold without the original manufacturer's brand name, once the patent has expired.

Step 4: Match the pair to the options.
Option 1 makes "platform" a lab table and "generic" about genes, both

wrong senses. Option 2 keeps "method" for platform but wrongly ties "generic" to genes. Option 3 gets "generic" right but wrongly reduces "platform" to lab experiments rather than a methodology. Option 4 pairs "methodology" with "without a brand name," matching both words correctly.

Final Answer:
Platform means methodology and generic means without a brand name, so the answer is option 4.

Methodology; without a brand name

Quick Tip: Read platform as the growing system Vemuganti built, and generic in the drug sense of no brand name.

. Choose the option which is closest in meaning to the word **SUBTLE**.

(A) Innocent

(B) Elusive

(C) Dangerous

(D) Insidious

Correct Answer: (D) Insidious

Solution:

This question asks for the word closest in meaning to "subtle." Subtle describes something that is not obvious, delicate, or hard to notice at first glance, often because its effect builds up gradually rather than announcing itself directly.

1. **Innocent**: This means free from guilt or harm. It has nothing to do with being hard to notice, so it does not match "subtle."
2. **Elusive**: This means hard to catch, find, or pin down, which is close but describes something that escapes capture or definition, not something that is quietly working beneath the surface.
3. **Dangerous**: This means causing harm or risk directly and openly. It is nearly the opposite tone of "subtle," which implies something quiet and understated.
4. **Insidious**: This means proceeding in a gradual, hidden way, often causing harm before it is noticed. This gradual, hard to detect quality is the core of what "subtle" means, making it the closest match.

Between the four choices, "insidious" shares the essential idea in "subtle": something operating quietly, gradually, and without drawing attention to itself.

Let's summarize:

- Subtle means delicate, gradual, and not obvious.
- Insidious carries this same sense of a gradual, hidden effect, unlike innocent, elusive, or dangerous.

The correct answer is option 4, insidious.

Quick Tip: Subtle means gradual and hard to notice; look for the option that shares that quiet, hidden quality.

. The following sentence has a missing punctuation mark. Choose the right answer.

"My mother who is from the village is very superstitious."

(A) Brackets

(B) Comma

(C) Semicolon

(D) Apostrophe

Correct Answer: (B) Comma

Solution:

Step 1: Understanding the Question.
The sentence "My mother who is from the village is very superstitious" is missing one punctuation mark, and we need to find which mark belongs and where.

Step 2: Identify the clause type.
"Who is from the village" is extra information about "my mother." It is not needed to know which mother is being talked about, since "my mother" already identifies her uniquely. A clause like this, which adds detail without being essential to identify the noun, is called a non-defining relative clause.

Step 3: Apply the punctuation rule.
Non-defining relative clauses are always set off from the rest of the sentence using a pair of commas, one before the clause and one after it. This is different from a defining clause, which needs no commas because it is essential to the sentence's meaning.

Step 4: Corrected sentence.

With the commas added, the sentence reads: "My mother, who is from the village, is very superstitious." A semicolon would wrongly suggest two independent clauses joined together, brackets are not standard for relative clauses in formal writing, and an apostrophe is used only for possession or contractions, none of which apply here.

Final Answer:

The missing punctuation mark is the comma, used in pairs around the non-defining clause.

Comma

Quick Tip: Check whether the clause who is from the village is essential to identify my mother, or just extra information.

. For the pair of sentences below, choose the right option.

1. Those are them.
2. Those are they.

(A) The first sentence has an error.

(B) The second sentence is erroneous.

(C) Both sentences are incorrect.

(D) Both sentences are correct.

Correct Answer: (A) The first sentence has an error.

Solution:

Step 1: Understanding the Question:
We have to check which pronoun is correct after the linking verb "are" in "Those are them" and "Those are they."

Step 2: Key Formula or Approach:
A linking verb such as is, are, was, or were does not act on an object. It simply joins the subject to a word that renames or describes it, called the subject complement. Since a subject complement points back to the subject, it must be in the subjective case (I, he, she, we, they), not the objective case (me, him, her, us, them).

Step 3: Detailed Explanation:
In sentence 1, "Those are them," the word "them" is objective. We use the objective case for the object of a verb or preposition, as in "I called them" or "give it to them." Here "them" is not receiving any action, it is renaming "those," so the objective form is wrong.
In sentence 2, "Those are they," the word "they" is subjective, and it correctly renames the subject "those" after the linking verb "are." This is the same pattern seen in formal expressions like "It is I" and "This is she."
So sentence 1 breaks the subject complement rule, while sentence 2 follows it correctly.

Step 4: Final Answer:
Option B fails because the second sentence is not wrong, it is grammatically sound. Option C fails because only one of the two sentences is wrong, not both. Option D fails because sentence 1 clearly breaks the rule. Only the first sentence has an error.

Option A: The first sentence has an error

Quick Tip: After a linking verb like "are," the word that follows must match the subject's case, so use "they" and not "them."

.

Instructions: Read the following passage and answer the question based on it.

TRIPs agreement provides a comprehensive set of global trade rules for the protection of copyright, patents, trademarks, industrial designs, trade secrets, semiconductor layout designs, and geographical indications, that apply to all member countries irrespective of their levels of development, natural and human endowments and history. Every member country has been asked by the WTO to amend its national patent law to conform to that universal globalized format for legislation relating to pharmaceutical, agrochemical, food, alloys, etc. Under Article 65, the developed countries have been asked to change their laws within another five years, and the less developed countries within an additional five years. The least developed countries have been asked to make those changes by 2005 AD.

This attempt at global standardisation and uniformity by way of the TRIPs agreement is in conflict with the main thrust of the Rio Earth Summit of 1992 that set out the conditions for sustainable development. These two reveal two contrasting types of international approaches and norms. While the 1992 Earth Summit and the 1993 Convention on Biodiversity (CBD) focused on 'diversity' as being fundamental to sustain life and development, TRIPs and WTO are pushing for 'conformity' to international standardized norms on patents, services, labour, investment and what not, irrespective of their history, ecology, level of economic development, etc. But despite their diametrically opposed viewpoints, 170 countries signed CBD upholding the need for diversity, and 50 countries signed the TRIPs agreement in 1994 claiming the urgency of uniformity, with a very large element of common signatories (130) in both.

The Convention on Biodiversity (CBD), in its Article 16.5, specifically asserts that intellectual property rights must not be in conflict with conservation and sustainable use of biodiversity, a provision that has been

totally ignored by those who composed the TRIPs agreement. While in the case of agriculture the higher yield of patented products induces farmers to switch from a more varied production pattern, the resulting narrowing of the genetic base makes the economy and society more vulnerable to plant disease and epidemics. It is true that the move towards cultivation of a smaller number of higher yielding varieties and the uniform spread of the same variety over a large space predates the present debate on patents, particularly since the introduction of green revolution technology in the mid-sixties, but there can be no doubt that the latter has brought about a qualitative change in the scenario and has created the possibility of a vast quantitative change too in that direction. So far no attempt has been made to reconcile the two conflicting approaches of CBD and TRIPs. If diversity is so important for sustaining life, how can WTO demand conformity to standardised global formats?

The author points out that intellectual property rights and their administration mechanism

(A) is throttling the interest of global biodiversity

(B) is working to help sustain global biodiversity

(C) is being sustained by global biodiversity

(D) is what the global biodiversity needs

Correct Answer: (A) is throttling the interest of global biodiversity

Solution:

Step 1: Understanding the Question:
We need to find the author's view on how intellectual property rights, as run through the TRIPs agreement, affect global biodiversity.

Step 2: Key Formula or Approach:
In a passage-based question like this, find the sentences that directly

link the two ideas named in the question, here "intellectual property rights" and "biodiversity," and read what the author says about that link, rather than picking an option that only sounds plausible.

Step 3: Detailed Explanation:

The passage sets up a clear contrast: TRIPs and the WTO push for conformity to one global patent standard, while the CBD and the Rio Earth Summit push for diversity as the basis of sustaining life. The passage also states that CBD's Article 16.5 says intellectual property rights must not conflict with conserving biodiversity, and that this provision has been totally ignored by those who wrote TRIPs.

The passage then gives a concrete example: patented, higher yield crop products push farmers away from varied production and towards fewer, more uniform crop varieties. This narrows the genetic base of what is grown, which makes crops more open to disease and epidemics. This is a direct case of intellectual property rights working against biodiversity, not for it.

Step 4: Final Answer:

Option B is wrong because the passage shows TRIPs undermining biodiversity, not sustaining it. Option C is wrong because the passage never says biodiversity sustains intellectual property rights, if anything the relationship runs the other way. Option D is wrong because the author never claims biodiversity needs this kind of conformity, the opposite point is made. The passage shows that IP rights under TRIPs choke off biodiversity, matching option A.

Option A: is throttling the interest of global biodiversity

Quick Tip: Trace what the passage says happens to crop variety once patented seeds spread, then match that effect to the options.

.

Instructions: Read the following passage and answer the question based on it.

TRIPs agreement provides a comprehensive set of global trade rules for the protection of copyright, patents, trademarks, industrial designs, trade secrets, semiconductor layout designs, and geographical indications, that apply to all member countries irrespective of their levels of development, natural and human endowments and history. Every member country has been asked by the WTO to amend its national patent law to conform to that universal globalized format for legislation relating to pharmaceutical, agrochemical, food, alloys, etc. Under Article 65, the developed countries have been asked to change their laws within another five years, and the less developed countries within an additional five years. The least developed countries have been asked to make those changes by 2005 AD.

This attempt at global standardisation and uniformity by way of the TRIPs agreement is in conflict with the main thrust of the Rio Earth Summit of 1992 that set out the conditions for sustainable development. These two reveal two contrasting types of international approaches and norms. While the 1992 Earth Summit and the 1993 Convention on Biodiversity (CBD) focused on 'diversity' as being fundamental to sustain life and development, TRIPs and WTO are pushing for 'conformity' to international standardized norms on patents, services, labour, investment and what not, irrespective of their history, ecology, level of economic development, etc. But despite their diametrically opposed viewpoints, 170 countries signed CBD upholding the need for diversity, and 50 countries signed the TRIPs agreement in 1994 claiming the urgency of uniformity, with a very large element of common signatories (130) in both.

The Convention on Biodiversity (CBD), in its Article 16.5, specifically asserts that intellectual property rights must not be in conflict with conservation and sustainable use of biodiversity, a provision that has been

totally ignored by those who composed the TRIPs agreement. While in the case of agriculture the higher yield of patented products induces farmers to switch from a more varied production pattern, the resulting narrowing of the genetic base makes the economy and society more vulnerable to plant disease and epidemics. It is true that the move towards cultivation of a smaller number of higher yielding varieties and the uniform spread of the same variety over a large space predates the present debate on patents, particularly since the introduction of green revolution technology in the mid-sixties, but there can be no doubt that the latter has brought about a qualitative change in the scenario and has created the possibility of a vast quantitative change too in that direction. So far no attempt has been made to reconcile the two conflicting approaches of CBD and TRIPs. If diversity is so important for sustaining life, how can WTO demand conformity to standardised global formats?

Which of the following has been said by the author in the passage?

(A) A high number of countries have signed both CBD and TRIPs, two conflicting treaties.

(B) A narrow genetic base, if stuck to for long, is fraught with danger.

(C) Although a nondiscriminatory approach has been followed in the applicability of TRIPs, there has been a confessional attitude in prescribing a time frame for transition, as per needs of the respective countries.

(D) The author is supportive of international conventions and treaties such as TRIPs, CBD etc.

Correct Answer: (D) The author is supportive of international conventions and treaties such as TRIPs, CBD etc.

Solution:

This question asks which statement best captures what the author is really saying in the passage, not just which statement contains a fact borrowed from the passage. Several options quote or echo the passage, so we need to check which one matches the author's actual, larger claim rather than a side detail.

1. **A high number of countries have signed both CBD and TRIPs, two conflicting treaties:** This is factually present in the passage (170 signed CBD, 50 signed TRIPs, 130 signed both), but the author uses this fact only to set up the deeper tension between diversity and conformity, not as the main point being argued.
2. **A narrow genetic base, if stuck to for long, is fraught with danger:** This is also true to the passage's agriculture example, but it is one supporting illustration used to back up the larger criticism of TRIPs, not the overall statement the question is after.
3. **Although a nondiscriminatory approach has been followed in the applicability of TRIPs, there has been a confessional attitude in prescribing a time frame for transition:** The passage never uses language like "confessional attitude," and it does not claim TRIPs is nondiscriminatory, in fact different timelines for developed, developing, and least developed countries show the opposite. This option does not match the passage.
4. **The author is supportive of international conventions and treaties such as TRIPs, CBD etc:** The author engages seriously with both TRIPs and CBD as real international efforts at global cooperation, even while pointing out that they conflict with each other. Taking both seriously enough to compare and critique them shows the author values the process of

international treaty-making, even when criticizing specific outcomes.

The author's overall stance across the passage treats CBD and TRIPs as significant global efforts worth close discussion, which is a broader statement about attitude, not a single fact plucked from one paragraph. That makes option D the best match for what the author has actually said.

Let's summarize:

- Options A and B repeat true details from the passage, but only as supporting evidence, not the author's main point.
- Option C invents an attitude and a claim of nondiscrimination that the passage does not support.

So the correct answer is that the author is supportive of international conventions and treaties such as TRIPs and CBD, which is option D.

Quick Tip: Separate facts the passage mentions in passing from the author's overall stance across the whole passage.

.

Instructions: Read the following passage and answer the question based on it.

TRIPs agreement provides a comprehensive set of global trade rules for the protection of copyright, patents, trademarks, industrial designs, trade secrets, semiconductor layout designs, and geographical indications, that apply to all member countries irrespective of their levels of development, natural and human endowments and history. Every member country has been asked by the WTO to amend its national patent law to conform to that universal globalized format for legislation relating to pharmaceutical, agrochemical, food, alloys, etc. Under Article 65, the developed countries have been asked to change their laws within another five years, and the less developed countries within an additional five years. The least developed countries have been asked to make those changes by 2005 AD.

This attempt at global standardisation and uniformity by way of the TRIPs agreement is in conflict with the main thrust of the Rio Earth Summit of 1992 that set out the conditions for sustainable development. These two reveal two contrasting types of international approaches and norms. While the 1992 Earth Summit and the 1993 Convention on Biodiversity (CBD) focused on 'diversity' as being fundamental to sustain life and development, TRIPs and WTO are pushing for 'conformity' to international standardized norms on patents, services, labour, investment and what not, irrespective of their history, ecology, level of economic development, etc. But despite their diametrically opposed viewpoints, 170 countries signed CBD upholding the need for diversity, and 50 countries signed the TRIPs agreement in 1994 claiming the urgency of uniformity, with a very large element of common signatories (130) in both.

The Convention on Biodiversity (CBD), in its Article 16.5, specifically asserts that intellectual property rights must not be in conflict with conservation and sustainable use of biodiversity, a provision that has been

totally ignored by those who composed the TRIPs agreement. While in the case of agriculture the higher yield of patented products induces farmers to switch from a more varied production pattern, the resulting narrowing of the genetic base makes the economy and society more vulnerable to plant disease and epidemics. It is true that the move towards cultivation of a smaller number of higher yielding varieties and the uniform spread of the same variety over a large space predates the present debate on patents, particularly since the introduction of green revolution technology in the mid-sixties, but there can be no doubt that the latter has brought about a qualitative change in the scenario and has created the possibility of a vast quantitative change too in that direction. So far no attempt has been made to reconcile the two conflicting approaches of CBD and TRIPs. If diversity is so important for sustaining life, how can WTO demand conformity to standardised global formats?

Out of the countries that signed CBD, the percentage of those that signed the TRIPs also, is

(A) 76.5

(B) 74.5

(C) 78.5

(D) 80.2

Correct Answer: (A) 76.5

Solution:

Step 1: Pull out the numbers from the passage.
The passage states that 170 countries signed CBD, and that 130 countries are common signatories, meaning they signed both CBD and TRIPs.

Step 2: Identify the base for the percentage.

The question asks, out of the countries that signed CBD, what percentage also signed TRIPs. This means the base (the denominator) is the CBD signatory count, which is 170, and the part (the numerator) is the countries that signed both, which is 130.

Step 3: Apply the percentage formula.

$$\text{Percentage} = \frac{\text{Part}}{\text{Base}} \times 100 = \frac{130}{170} \times 100$$

Step 4: Compute the value.

$$\frac{130}{170} = 0.7647$$

$$0.7647 \times 100 = 76.47 \approx 76.5$$

Step 5: Final Answer.

Option B (74.5), option C (78.5), and option D (80.2) all use the wrong base or a miscalculated ratio, none of them equal 130 divided by 170. The correct value, rounded to one decimal place, is 76.5.

$$\boxed{76.5}$$

Quick Tip: The base of the percentage is the number of CBD signatories (170), and the part is the overlap with TRIPs (130).

.

Instructions: Read the following passage and answer the question based on it.

TRIPs agreement provides a comprehensive set of global trade rules for the protection of copyright, patents, trademarks, industrial designs, trade secrets, semiconductor layout designs, and geographical indications, that apply to all member countries irrespective of their levels of development, natural and human endowments and history. Every member country has been asked by the WTO to amend its national patent law to conform to that universal globalized format for legislation relating to pharmaceutical, agrochemical, food, alloys, etc. Under Article 65, the developed countries have been asked to change their laws within another five years, and the less developed countries within an additional five years. The least developed countries have been asked to make those changes by 2005 AD.

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totally ignored by those who composed the TRIPs agreement. While in the case of agriculture the higher yield of patented products induces farmers to switch from a more varied production pattern, the resulting narrowing of the genetic base makes the economy and society more vulnerable to plant disease and epidemics. It is true that the move towards cultivation of a smaller number of higher yielding varieties and the uniform spread of the same variety over a large space predates the present debate on patents, particularly since the introduction of green revolution technology in the mid-sixties, but there can be no doubt that the latter has brought about a qualitative change in the scenario and has created the possibility of a vast quantitative change too in that direction. So far no attempt has been made to reconcile the two conflicting approaches of CBD and TRIPs. If diversity is so important for sustaining life, how can WTO demand conformity to standardised global formats?

According to the author, a higher-yield seed variety is not always welcome as it also ultimately leads to

(A) diseases among the consumers.

(B) diseases among the plants.

(C) monopoly of developed countries.

(D) monopoly of developing countries.

Correct Answer: (B) diseases among the plants.

Solution:

Step 1: Understanding the Question:
We need to find what the author says is the downside of higher yield, patented seed varieties.

Step 2: Key Formula or Approach:
Find the specific sentence in the passage that describes the

consequence of switching to higher yield varieties, and read it literally rather than inferring an unstated consequence.

Step 3: Detailed Explanation:
The passage says that the higher yield of patented products pushes farmers to move away from a varied production pattern towards fewer, more uniform crop varieties. It then states directly that this narrowing of the genetic base makes the economy and society more vulnerable to plant disease and epidemics.
The chain of cause and effect is: higher yield seeds, then fewer crop varieties grown, then a narrower genetic base, then greater vulnerability to disease among the crops themselves, since a uniform crop population has no natural genetic variation to resist a disease that targets it.

Step 4: Final Answer:
Option A is wrong because the passage talks about disease risk to the plants, not to the people eating them. Options C and D are wrong because monopoly of developed or developing countries is never mentioned as a consequence in this part of the passage. The passage is specific that the risk lands on the plants themselves, which is option B.

Option B: diseases among the plants

Quick Tip: Follow the passage's chain: higher yield seeds reduce crop variety, which narrows the genetic base and raises disease risk in the crop itself.

.

Instructions: Read the following passage and answer the question based on it.

TRIPs agreement provides a comprehensive set of global trade rules for the protection of copyright, patents, trademarks, industrial designs, trade secrets, semiconductor layout designs, and geographical indications, that apply to all member countries irrespective of their levels of development, natural and human endowments and history. Every member country has been asked by the WTO to amend its national patent law to conform to that universal globalized format for legislation relating to pharmaceutical, agrochemical, food, alloys, etc. Under Article 65, the developed countries have been asked to change their laws within another five years, and the less developed countries within an additional five years. The least developed countries have been asked to make those changes by 2005 AD.

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totally ignored by those who composed the TRIPs agreement. While in the case of agriculture the higher yield of patented products induces farmers to switch from a more varied production pattern, the resulting narrowing of the genetic base makes the economy and society more vulnerable to plant disease and epidemics. It is true that the move towards cultivation of a smaller number of higher yielding varieties and the uniform spread of the same variety over a large space predates the present debate on patents, particularly since the introduction of green revolution technology in the mid-sixties, but there can be no doubt that the latter has brought about a qualitative change in the scenario and has created the possibility of a vast quantitative change too in that direction. So far no attempt has been made to reconcile the two conflicting approaches of CBD and TRIPs. If diversity is so important for sustaining life, how can WTO demand conformity to standardised global formats?

As per the TRIPs agreement, not much differentiation is made between a developed country such as the USA and an undeveloped country such as Sudan. This statement is

(A) definitely true

(B) definitely false

(C) probably true

(D) probably false

Correct Answer: (B) definitely false

Solution:

Step 1: Understanding the Question:

We need to check whether TRIPs treats developed and undeveloped countries almost the same way, as the statement in the question claims.

Step 2: Key Formula or Approach:

For a definitely true or definitely false judgement, look for a clear, stated fact in the passage that directly confirms or contradicts the claim, rather than an inference that could go either way.

Step 3: Detailed Explanation:

The passage states, under Article 65, that developed countries were given five years to change their laws, less developed (developing) countries were given an additional five years on top of that, and the least developed countries were given until 2005 AD to comply. These are three separate categories with three separate, and clearly different, time frames.

This is a concrete, stated fact in the passage, not an inference, so we do not need to guess or hedge. Giving a country like the USA a shorter compliance window than a country like Sudan is itself a form of differentiation, based on their level of development.

Step 4: Final Answer:

Option A is wrong because the passage's own numbers directly contradict the claim of no differentiation. Options C and D use 'probably,' but since Article 65's differing timelines are stated outright in the passage, there is no need for a probability hedge, we know the answer for certain. Since the passage clearly shows differentiation, the claim of 'not much differentiation' is definitely false.

Option B: definitely false

Quick Tip: Article 65 gives three different compliance deadlines by country category, which is itself proof of differentiation.

. A single word equivalent for the statement 'Speak falsely with deliberate intent' is

(A) repudiate

(B) prevaricate

(C) disparage

(D) equivocate

Correct Answer: (D) equivocate

Solution:

This question asks for the single word that means 'to speak falsely with deliberate intent,' so we need a word about intentionally misleading someone through what is said, not about rejecting, evading, or insulting someone.

1. **repudiate:** This means to reject, disown, or refuse to accept something, such as repudiating a claim or an agreement. It has nothing to do with speaking falsely.
2. **prevaricate:** This means to act or speak in an evasive way, avoiding a direct or full answer, often to stall or dodge a topic. It leans towards avoiding the truth rather than deliberately stating a falsehood.
3. **disparage:** This means to speak of someone or something in a belittling or negative way, so it is about insulting, not about lying.
4. **equivocate:** This means to use unclear, ambiguous, or misleading language on purpose, specifically to hide the truth or create a false impression. This is the closest match to 'speak falsely with deliberate intent,' since it centers on the deliberate, intentional part of misleading someone through speech.

Since the question specifically calls for deliberate, intentional false speech, and equivocate is defined around intentionally vague or misleading language used to conceal the truth, option D fits best.

Let's summarize:

- Repudiate is about rejecting, not lying.
- Disparage is about insulting, not lying.
- Prevaricate leans towards evasiveness rather than a deliberate false statement.
- Equivocate directly means to speak in a deliberately misleading or false way.

So the correct one word substitute for 'speak falsely with deliberate intent' is equivocate, option D.

Quick Tip: Look for the word centered on deliberately misleading speech, not just evasive or insulting speech.

. Identify the option with the correct spelling.

(A) paraphenalia

(B) progame

(C) pediatrics

(D) beserk

Correct Answer: (C) pediatrics

Solution:

This question checks whether the given spellings match the standard, dictionary-correct spelling of each word. Only one of the four options

is spelled correctly.

1. **paraphenalia:** This is a misspelling. The correct spelling is 'paraphernalia,' meaning the equipment or items used for a particular activity. The mistake here is dropping the 'r' after 'pa,' which should read '-pher-' not '-phe-.'
2. **progame:** This is a misspelling of 'programme' (or 'program' in the American form), meaning a planned schedule or set of instructions. The word here is missing letters and does not form any correct English word as written.
3. **pediatrics:** This is spelled correctly. It names the branch of medicine dealing with the health and treatment of children.
4. **beserk:** This is a misspelling of 'berserk,' meaning out of control or in a frenzy. The correct spelling starts with 'ber-,' not 'be-.'

Since paraphenalia, progame, and beserk are each missing letters compared to their correct forms, and only pediatrics is written the way it should be, the correct spelling among the options is pediatrics.

Let's summarize:

- paraphenalia should be paraphernalia.
- progame should be programme (or program).
- beserk should be berserk.

So the option with the correct spelling is pediatrics, option C.

Quick Tip: Check each option letter by letter against its correct dictionary spelling; three of the four are missing a letter.

.

Which two sentences in the following convey the same idea?

1. Wasn't there any checking at the airport?
2. I want to know if there was any checking at the airport.
3. I wonder if there should have been any checking at the airport.
4. There should have been checking at the airport.

(A) 2, 3

(B) 1, 2

(C) 3, 4

(D) 2, 4

Correct Answer: (B) 1, 2

Solution:

Step 1: Understanding the Question:
We must find which two of the four given sentences express the same underlying idea, even though they are worded differently.

Step 2: Key Formula or Approach:
Two sentences convey the same idea when they ask or state the same fact in different grammatical forms, such as a direct question and its indirect (reported) version. We check the core meaning and mood of each sentence before matching them.

Step 3: Detailed Explanation:
Sentence 1, "Wasn't there any checking at the airport?", is a direct question asking whether checking happened.
Sentence 2, "I want to know if there was any checking at the airport.", turns the same question into an indirect form using "if". Both simply

ask about the plain past fact of whether checking took place.
Sentence 3 uses "should have been", which questions whether checking ought to have happened, an idea of expectation, not a plain fact.
Sentence 4 also uses "should have been", but as a statement, saying checking ought to have occurred. Sentences 3 and 4 share this idea of expectation, which is different from what 1 and 2 express.
Since sentences 1 and 2 both ask, in different forms, whether checking actually took place, they convey the same idea.

Step 4: Final Answer:
Sentences 1 and 2 convey the same idea, so the correct answer is option (B).

$\boxed{1, 2}$

Quick Tip: Check which sentences ask about the same plain fact, comparing a direct question with its indirect version.

.

Choose the grammatically correct sentence.

(A) You should at once report it to the concerned authority.

(B) You should report it at once, to the authority concerned.

(C) You should report it at once, to the concerned authority.

(D) You should at once report it to the authority concerned.

Correct Answer: (D) You should at once report it to the authority concerned.

Solution:

This question tests correct word order and standard English idiom, in particular the placement of the adverb phrase "at once" and the proper way to say "the authority concerned".

1. **You should at once report it to the concerned authority.**: "At once" is placed correctly right after "should", but "concerned authority" is not standard English. The idiomatic form places "concerned" after the noun, as in "the authority concerned".
2. **You should report it at once, to the authority concerned.**: "The authority concerned" is correct here, but the comma before "to the authority concerned" breaks the sentence awkwardly and is not needed, so the flow is poor.
3. **You should report it at once, to the concerned authority.**: This carries two faults together, the unnecessary comma and the wrong word order "concerned authority" instead of "authority concerned".
4. **You should at once report it to the authority concerned.**: "At once" sits right after "should", reading smoothly, and "the authority concerned" follows the standard idiom, where "concerned" (meaning "relevant" or "in question") comes after the noun it describes.

Standard English keeps "concerned" after the noun when it means "relevant to the matter", so "the authority concerned" is correct, not "the concerned authority" (which would instead suggest a worried authority). This makes option (D) the grammatically correct sentence.

Let's summarize:

- "At once" reads most naturally placed close to "should".

- "Concerned", meaning "relevant" or "in question", goes after the noun: "the authority concerned", not before it.

The correct sentence is "You should at once report it to the authority concerned," option (D).

Quick Tip: Recall that "concerned" meaning "relevant" goes after the noun, as in "authority concerned", not before it.

.

Find the correct match of grammatical function with usage for the word: AFTER

Grammatical function	**Usage**
1) adjective	(6) It appears to be the after effect of the disease.
2) adverb	(8) He came soon after.
3) conjunction	(5) You may go after having your lunch.
4) preposition	(7) Many graduates are hankering after jobs.

(A) 1-8, 2-5, 3-6, 4-7

(B) 1-6, 2-5, 3-8, 4-7

(C) 1-5, 2-8, 3-7, 4-6

(D) 1-6, 2-8, 3-5, 4-7

Correct Answer: (D) 1-6, 2-8, 3-5, 4-7

Solution:

Step 1: Understanding the Question:
We must match each grammatical function of the word "after" (adjective, adverb, conjunction, preposition) with the sentence that uses it in that role.

Step 2: Key Formula or Approach:
An adjective describes a noun, an adverb modifies a verb and often stands alone at the end of a clause, a conjunction joins two clauses, and a preposition is followed by a noun to show a relationship of time, place, or pursuit. We check what "after" is attached to in each numbered sentence.

Step 3: Detailed Explanation:
In sentence (6), "It appears to be the after effect of the disease," the word "after" sits directly before the noun "effect" and describes it, so this is the adjective use, matching function 1.
In sentence (8), "He came soon after," the word "after" stands alone at the end with no noun following it, modifying the verb "came" to show time. This is the adverb use, matching function 2.
In sentence (5), "You may go after having your lunch," the word "after" connects the main clause "you may go" with the clause "having your lunch," joining two ideas. This is the conjunction use, matching function 3.
In sentence (7), "Many graduates are hankering after jobs," the word "after" is followed by the noun "jobs" and shows the relationship between "hankering" and "jobs." This is the preposition use, matching function 4.

Step 4: Final Answer:
The correct match is 1-6, 2-8, 3-5, 4-7, which is option (D).

1-6, 2-8, 3-5, 4-7

Quick Tip: Check whether "after" sits before a noun, stands alone, joins two clauses, or takes an object noun.

.

NEOPHYTE is the opposite of

(A) student

(B) clown

(C) veteran

(D) professional

Correct Answer: (C) veteran

Solution:

This question tests vocabulary. "Neophyte" means a beginner or someone new to an activity, so we need the word that means the opposite: someone highly experienced.

1. **student**: A student is someone who is learning, which is close to being a beginner rather than its opposite, so this does not work as an antonym.
2. **clown**: A clown is a comic performer. This word has nothing to do with experience or inexperience, so it cannot be the opposite of "neophyte".
3. **veteran**: A veteran is a person with long experience in a field. Since "neophyte" means someone new and inexperienced, "veteran" is its direct opposite.

4. **professional**: A professional is someone who does something for a living, but a professional can still be new to the job, so this word does not directly oppose "beginner" the way "veteran" does.

The word that means the clear opposite of "neophyte" is "veteran", since it captures long experience against the newcomer status a neophyte has.

Let's summarize:

- "Neophyte" means a beginner or novice.
- "Veteran" means someone with long, proven experience, the exact opposite idea.

So the correct answer is "veteran", option (C).

Quick Tip: Think of a word meaning highly experienced, the opposite of a beginner.

.

Find the maximum number of times that any one of the given words fits the set of sentences.

Words: disabled, flimsy, crippled, lame

1. Don't make _____ excuses.
2. Liberalization may have _____ smaller manufacturers.
3. Being a defaulter at the stock exchange makes him a _____ duck.
4. A _____ person may limp.

(A) in all the four sentences

(B) in three sentences

(C) in two sentences

(D) in only one

Correct Answer: (C) in two sentences

Solution:

Step 1: Understanding the Question:

We are given four words, disabled, flimsy, crippled, and lame, and four sentences with blanks. We need to find how many of the four sentences a single word can complete naturally, and pick the maximum count reached by any one word.

Step 2: Key Formula or Approach:

Many English words are strongest inside fixed idiomatic phrases, like "lame excuse" or "lame duck", but sound wrong in other contexts where a different word fits better. We test each word against every sentence and count how many it naturally completes.

Step 3: Detailed Explanation:

Sentence 1, "Don't make _____ excuses," takes the word "lame", since "lame excuse" is a fixed, commonly used phrase in English.

Sentence 2, "Liberalization may have _____ smaller manufacturers," takes the word "crippled", meaning liberalization badly weakened small manufacturers.

Sentence 3, "Being a defaulter at the stock exchange makes him a _____ duck," takes the word "lame" again, since "lame duck" is the standard idiom for someone who has lost power or credibility.

Sentence 4, "A _____ person may limp," takes the word "crippled",

since a crippled person (someone with a physical disability affecting movement) is the one most linked to limping.
So "lame" completes sentences 1 and 3, and "crippled" completes sentences 2 and 4. No single word from the list completes three or all four sentences naturally.

Step 4: Final Answer:
The maximum number of sentences any one word fits is two, so option (C) is correct.

two sentences

Quick Tip: Test each word in every sentence and count how many sound natural or idiomatic.

.

Which of the following does not make a sensible word/phrase when added to the given word?

Word: FIRE

(A) fly

(B) engine

(C) stick

(D) escape

Correct Answer: (C) stick

Solution:

This question tests knowledge of common English compound words and phrases formed by combining "fire" with another word.

1. **fly**: "Firefly" is a well-known word for the glowing insect seen at night, so this combination works.
2. **engine**: "Fire engine" is a standard term for the vehicle used by firefighters to reach and put out fires, so this combination works.
3. **stick**: "Fire stick" is not a standard, dictionary-recognized English word or phrase. Unlike the other three, it does not form a common, meaningful term.
4. **escape**: "Fire escape" is a well-known term for the outdoor staircase or ladder used to leave a building safely during a fire, so this combination works.

Out of the four options, only "stick" fails to form a sensible, established word or phrase with "fire", making it the odd one out.

Let's summarize:

- "Firefly", "fire engine", and "fire escape" are all standard English words or phrases.
- "Fire stick" is not a recognized combination in standard usage.

So the correct answer is "stick", option (C).

Quick Tip: Try combining "fire" with each word and check if the result is a real, recognized English term.

.

Arrange the sentences 1, 2, 3, 4 to form a logical sequence between sentences I and II. Choose the alternative where the four combinations make a meaningful sentence.

I. We all value having the freedom

1. which many of us fail to honour
2. to make the choices we want in our careers
3. but with great freedom comes great responsibility
4. so most companies fall prey to the policies which become rigid

II. and that's probably one reason we find most companies not following what they preach

(A) 1, 3, 4, 2

(B) 2, 3, 1, 4

(C) 1, 4, 2, 3

(D) 3, 2, 1, 4

Correct Answer: (B) 2, 3, 1, 4

Solution:

Step 1: Understanding the Question:
We must arrange the four numbered fragments between sentence I, "We all value having the freedom," and sentence II, "and that's probably one reason we find most companies not following what they preach," so the whole passage reads as one meaningful sentence.

Step 2: Key Formula or Approach:
Read sentence I as the opening clause and check which fragment naturally completes its thought first. Then follow the logical chain of

ideas, cause leading to effect, until it connects smoothly into sentence II.

Step 3: Detailed Explanation:

Sentence I ends with "the freedom," which needs an object to complete it, and fragment 2, "to make the choices we want in our careers," directly completes this thought: "We all value having the freedom to make the choices we want in our careers."

After stating this freedom, fragment 3, "but with great freedom comes great responsibility," introduces a natural contrast, warning that freedom carries a duty with it.

Fragment 1, "which many of us fail to honour," follows fragment 3 well, since it explains that this responsibility is often not upheld: "responsibility, which many of us fail to honour."

Fragment 4, "so most companies fall prey to the policies which become rigid," then gives the consequence of failing to honour that responsibility, and it links smoothly into sentence II about companies not following what they preach.

Reading the full sequence together makes complete logical sense: freedom of choice, the responsibility that comes with it, the failure to honour that responsibility, and the resulting rigid company policies.

Step 4: Final Answer:

The correct order is 2, 3, 1, 4, which is option (B).

$$\boxed{2, 3, 1, 4}$$

Quick Tip: Find which fragment first completes "the freedom to...", then follow the cause-and-effect chain to sentence II.

.

Instructions [72-74]: Read the edited excerpt of an article by Nelson Vinod Moses and answer the question in this context.

A successful non-resident Indian employed in the United States returns to a backward Indian village and transforms the lives of the villagers. Sounds familiar? At 31, Ashwin Naik is pacing through the path Shah Rukh Khan traced in his off-bear Bollywood movie, Swades. Naik had just quit his cushy job in a genomics firm in the US to join MIT Sloan School of Business. With a month in hand, he headed home a travelled through the remote areas of Bagalkot district in Karnataka. The woeful social conditions he saw moved him. Naik chucked the MBA course and in six months set up Vaatsalya Healthcare, a rural healthcare delivery system. In February 2005, Vaatsalya's first hospital opened in Hubli. Two more centres were opened in Gadag and Karwar to offer specialist services of surgeons and facilities such as physiotherapy for children suffering from cerebral palsy. "We introduced paediatric surgery for infants below six months," says Naik. "Else, patients would have to be taken to distant cities of Hubli or Bangalore." Naik plans 100 more units in five states in the next three years. Mere charity by an affluent, middle-class professional? Far from it. Vaatsalya is one among rapidly spreading 'for profit' social enterprises that serve the poor and bring in profit. Mumbai-based Ziqitza, an imbalance services company, is another. It never refuses a patient for money, and charges Rs. 50 to 200. Done fleetingly in India and elsewhere till now, entrepreneurial minds with a social conscience are methodically creating such models at a greater pace. "There has been a boom in the past two years," says Varun Sahni, country director of Acumen Fund, a US based social fund that invests in companies that target low income communities. "Currently, there are about 1,000 in India." The timing seems perfect. There is a wide market acceptance and funding has been coming in easily. These enterprises work across a swathe of areas

including healthcare, education, rural energy, agriculture, arts and crafts, banking and more. 'For profit' entrepreneurs are obsessed with social and environmental impact in addition to the financial returns. Since they are answerable to the investors, they try expanding the business rapidly. SKS Microfinance, for instance, started in 1998 and has now over 900,000 customers, 440 branches and an outstanding loan disbursement of over Rs. 452 crores as of August 2007.

Identify the appropriate business model of the kind of enterprise described by the author.

(A) Servicing societies at no profit

(B) Profiting from poor people

(C) Setting up enterprises for masses of low-income groups on experimental basis

(D) Setting up enterprises for social causes for profit and expand rapidly

Correct Answer: (D) Setting up enterprises for social causes for profit and expand rapidly

Solution:

Step 1: Understanding the Question:
The passage describes Vaatsalya Healthcare, Ziqitza, and similar ventures, and asks us to identify the business model these companies share, based only on what the passage states.

Step 2: Key Formula or Approach:
For a business model question drawn from a passage, we pick out the phrases the author uses to describe the companies directly, then match those phrases against the given options rather than relying on outside knowledge of these firms.

Step 3: Detailed Explanation:

The author calls these ventures "for profit" social enterprises, so an option describing them as running at no profit does not fit.

The author also states directly that this is not "mere charity," which rules out treating them as pure charitable giving.

Ziqitza is shown charging a modest, capped fee of Rs. 50 to 200 and never turning away a patient for lack of money, which shows the model is not about extracting money from the poor.

The passage describes fast, large-scale growth: Naik plans 100 more hospital units across five states, and SKS Microfinance already has over 900,000 customers and 440 branches, showing these are not small trial projects but rapidly expanding ventures.

The passage also notes these firms are "answerable to the investors," which is why they push to expand quickly, tying the profit motive directly to growth.

Step 4: Final Answer:

Combining the "for profit" social mission with the rapid, investor-driven expansion described in the passage, the correct business model is "setting up enterprises for social causes for profit and expand rapidly," option (D).

Option (D)

Quick Tip: Look for the author's own words describing the enterprises as "for profit" and rapidly expanding, not charity.

.

Read the passage and answer the question that follows.

Vaatsalya Healthcare is one among a rapidly spreading group of "for profit" social enterprises that serve the poor and still bring in profit. Mumbai based Ziqitza, an ambulance services company, is another; it never refuses a patient for lack of money and charges only Rs. 50 to Rs. 200. Entrepreneurial minds with a social conscience are now building such models at a much faster pace than before. Varun Sahni, country director of Acumen Fund, a US based social fund that invests in companies targeting low income communities, says there has been a boom in such enterprises over the past two years, with about 1,000 of them now operating in India. These enterprises work across healthcare, education, rural energy, agriculture, arts and crafts, banking and more. "For profit" entrepreneurs care about social and environmental impact along with financial returns, and because they are answerable to investors, they try to expand the business rapidly. SKS Microfinance, for instance, started in 1998 and now has over 900,000 customers, 440 branches and an outstanding loan disbursement of over Rs. 452 crore as of August 2007.

Which of the following companies does not illustrate the idea explained by the author?

(A) SKS Microfinance

(B) Acumen Fund

(C) Ziqitza

(D) Vaatsalya Healthcare

Correct Answer: (B) Acumen Fund

Solution:

This question is based on the passage about "for profit" social enterprises, organisations that serve poor and low income communities while still running as a real, profit making business. The passage names several such enterprises and one investor. We need to pick the option that is NOT itself an enterprise of this kind.

1. **SKS Microfinance**: The passage says SKS Microfinance started in 1998 and now has over 900,000 customers, 440 branches and an outstanding loan disbursement of over Rs. 452 crore. It lends money directly to low income borrowers and earns interest on those loans, so it fits the "for profit" social enterprise pattern the author describes.
2. **Acumen Fund**: The passage describes Acumen Fund as "a US based social fund that invests in companies that target low income communities". This means Acumen Fund puts money into other enterprises, it does not itself run hospitals, ambulances or microfinance branches for the poor. It is an investor sitting one step away from the direct service delivery the author is writing about, so it does not illustrate the idea in the same way the other three do.
3. **Ziqitza**: Ziqitza is named as a Mumbai based ambulance services company that never turns away a patient for lack of money and charges only Rs. 50 to Rs. 200. It delivers a direct paid service to the poor, exactly the model the author describes.
4. **Vaatsalya Healthcare**: This is the very enterprise the passage opens with, a chain of hospitals bringing paediatric surgery and other care to smaller towns on a for profit basis. It is the clearest example of the idea in the passage.

Three of the four options, SKS Microfinance, Ziqitza and Vaatsalya Healthcare, are enterprises that sell a service or product directly to

low income customers and earn a profit doing it. Acumen Fund is different: it is a fund that finances such enterprises rather than running one, so it does not illustrate the author's idea in the same direct sense.

Let's summarize:

- SKS Microfinance, Ziqitza and Vaatsalya Healthcare all directly serve low income customers while earning a profit, matching the passage.
- Acumen Fund only invests in such companies, it is a financier, not a service delivering enterprise.

So the company that does not illustrate the author's idea is Acumen Fund, option B.

Quick Tip: Look at which option only provides money to other businesses instead of directly serving low income customers itself.

.

Read the passage and answer the question that follows.

Vaatsalya Healthcare is one among a rapidly spreading group of "for profit" social enterprises that serve the poor and still bring in profit. Mumbai based Ziqitza, an ambulance services company, is another; it never refuses a patient for lack of money and charges only Rs. 50 to Rs. 200. Entrepreneurial minds with a social conscience are now building such models at a much faster pace than before. Varun Sahni, country director of Acumen Fund, a US based social fund that invests in companies targeting low income communities, says there has been a boom in such enterprises over the past two years, with about 1,000 of them now operating in India. These enterprises work across healthcare, education, rural energy, agriculture, arts and crafts, banking and more. "For profit" entrepreneurs care about social and environmental impact along with financial returns, and because they are answerable to investors, they try to expand the business rapidly. SKS Microfinance, for instance, started in 1998 and now has over 900,000 customers, 440 branches and an outstanding loan disbursement of over Rs. 452 crore as of August 2007.

According to the author, which of the following options describes "for profit" entrepreneurs most appropriately?

(A) NRIs paying back to their motherland

(B) Those affluent, middle-class professionals treating it as charity

(C) Those who work towards getting financial returns on social business by expanding quickly

(D) Those who have sympathetic investors for their business ideas for the poor

Correct Answer: (C) Those who work towards getting financial returns on social business by expanding quickly

Solution:

Step 1: Understanding the Question:

We need to pick the option that matches the author's own description of "for profit" entrepreneurs, not a general guess about what such people might be like.

Step 2: Key Formula or Approach:

Find the exact sentence in the passage that defines these entrepreneurs, then match its wording against each option instead of relying on outside assumptions.

Step 3: Detailed Explanation:

The passage states plainly: "'For profit' entrepreneurs are obsessed with social and environmental impact in addition to the financial returns. Since they are answerable to the investors, they try expanding the business rapidly."

Option A talks about NRIs paying back to their motherland, which the passage never mentions at all, so it does not apply.

Option B calls them affluent professionals doing charity, but the passage explicitly separates this model from charity with the line "Mere charity by an affluent, middle-class professional? Far from it." This is the opposite of what the passage says.

Option C says these are people who work towards financial returns on a social business by expanding quickly, which lines up word for word with "financial returns" and "expanding the business rapidly" in the passage.

Option D focuses on having sympathetic investors, but the passage says these entrepreneurs are answerable to investors, not simply supported by sympathetic ones, so this misses the point.

Step 4: Final Answer:

Only option C matches the passage's own definition, seeking financial returns while expanding the business quickly.

Option C

Quick Tip: Match the options against the passage's own line about financial returns and rapid expansion.

.

A contextual usage is provided for the word below. Pick the word that is most inappropriate.

MALINGER: The young man made it a point to malinger in spite of the assigned work load.

(A) Wander

(B) Laze

(C) Evade

(D) Argue

Correct Answer: (D) Argue

Solution:

Malinger means to pretend to be sick or injured so as to get out of doing work or duty. The sentence uses it to describe a young man who deliberately avoids his assigned work load. We need the one option whose meaning does not sit with that idea.

1. **Wander**: To wander means to move about without a fixed purpose or destination. It is not a direct synonym of malinger, but a person who wanders off instead of working is, in a loose sense, avoiding the job at hand, so this word stays in the same neighbourhood of meaning.
2. **Laze**: To laze means to spend time being idle or lazy instead of working. This is close in spirit to malingering, since both describe someone dodging effort.
3. **Evade**: To evade means to avoid or escape a duty or responsibility, which is almost exactly what malinger describes, just without the pretence of illness. This fits well.
4. **Argue**: To argue means to exchange or state opposing views, often with some heat. This has nothing to do with pretending illness or dodging work, it is about disagreement, not avoidance.

Wander, laze and evade can all describe, directly or loosely, a person who is avoiding work. Argue describes something completely different: expressing disagreement. It does not belong with the other three in the context of "malinger".

Let's summarize:

- Malinger means to fake illness or incapacity to dodge duty.
- Wander, laze and evade all connect to avoiding work in some way.
- Argue is about disagreement, unrelated to shirking work, so it does not fit the context.

The most inappropriate word here is "Argue", option D.

Quick Tip: Malinger means to fake being unwell to avoid work. Find the option unrelated to avoiding duty.

.

The following is a scrambled sentence with the segments marked 1, 2, 3 and 4. Choose the alternative with the order of segments that best reconstructs the sentence.

1. For all the padre's rhetoric about the English as God's Chosen People, the padre had a whole tribe of Anglo-Indian first cousins.
2. Padre Rotton was an even more striking case.
3. By various Indian wives, all of whom were at that moment engaged in fighting on the rebel side in Avadh, where they took an active part in besieging the British Residency in Lucknow.
4. These included James Rotton who could not speak English and the twenty two Muslim sons of his convert cousin, Felix Rotton.

(A) 1, 2, 3, 4

(B) 2, 1, 4, 3

(C) 1, 4, 2, 3

(D) 2, 4, 1, 3

Correct Answer: (B) 2, 1, 4, 3

Solution:

Step 1: Understanding the Question:
Four scrambled sentence parts must be arranged into one connected passage. We need to find the natural opening line and then follow the chain of references between the remaining lines.

Step 2: Key Formula or Approach:
The opening line of a passage usually introduces the main subject on its own, without leaning on a pronoun or a word like "these" or "by"

that only makes sense if something earlier has already been said. Later lines should pick up words or ideas from the line right before them.

Step 3: Detailed Explanation:

Sentence 2, "Padre Rotton was an even more striking case," names the subject and reads like the start of a new point being made about him, so it opens the passage.

Sentence 1 follows next: "For all the padre's rhetoric... the padre had a whole tribe of Anglo-Indian first cousins" explains exactly why Padre Rotton is called "a striking case", the irony that a man preaching about the English as God's Chosen People was himself surrounded by mixed-race cousins.

Sentence 4 comes after that: "These included James Rotton... the twenty two Muslim sons of his convert cousin, Felix Rotton" uses the word "these" to point straight back to "a whole tribe of Anglo-Indian first cousins" in sentence 1, so it must sit right after sentence 1.

Sentence 3 closes the passage: "By various Indian wives... besieging the British Residency in Lucknow" explains how those cousins came to exist (through various Indian wives) and adds the closing historical detail about the rebellion.

Step 4: Final Answer:

Following the chain, subject introduced, then irony explained, then cousins named, then wives and rebellion described, the order is 2, 1, 4, 3.

2, 1, 4, 3, option B

Quick Tip: Start with the sentence that introduces Padre Rotton by name, then follow the "these included" reference chain.

.

Choose the sentence in which the given word is used correctly (grammatically and semantically). Word: **ALMOST**

(A) As I crossed the road a scooterist almost hit me.

(B) Crossing the road a scooterist hit me almost.

(C) A scooterist across the road almost hit me.

(D) A scooterist almost hit me crossing the road.

Correct Answer: (A) As I crossed the road a scooterist almost hit me.

Solution:

Almost means "very close to, but not quite" and it works as an adverb that must sit right before the word or phrase it is modifying, usually the verb whose action almost happened. Here that verb is "hit", so "almost" should sit directly before "hit" and the sentence should make clear that the collision was narrowly avoided.

1. **As I crossed the road a scooterist almost hit me.**: "Almost" sits right before "hit", so it clearly modifies the verb. The sentence says a scooterist came very close to hitting the speaker while the speaker was crossing the road, which is exactly the intended meaning, no collision actually happened.
2. **Crossing the road a scooterist hit me almost.**: Here "almost" is placed at the very end, after "hit me", which makes it read as if the hit did happen and "almost" is just tacked on

loosely. It also leaves it unclear who was crossing the road, the speaker or the scooterist.

3. **A scooterist across the road almost hit me.**: "Across the road" means the scooterist was on the far side of the road, so it is not logical for someone on the other side of the road to almost hit the speaker.
4. **A scooterist almost hit me crossing the road.**: The placement of "crossing the road" at the end makes it ambiguous whether it was the speaker or the scooterist who was crossing, which weakens the sentence's clarity.

Only option A places "almost" correctly, right before the verb "hit", and keeps the meaning clear and unambiguous: the speaker was crossing the road and a scooterist very nearly hit them.

Let's summarize:

- "Almost" should be placed immediately before the verb or phrase it modifies.
- Poor placement of "almost" can imply the action actually happened, or can leave the sentence ambiguous about who did what.

The grammatically and semantically correct sentence is option A.

Quick Tip: "Almost" must sit right before the verb it modifies, and the sentence must stay logically clear.

.

In the following sentence choose the erroneous segment.

A. We took a taxi
B. so we would be on time for the meeting
C. (no further segment; the sentence ends here in the source)

(A) Error in segment A

(B) Error in segment B

(C) Error in segment C

(D) No error

Correct Answer: (B) Error in segment B

Solution:

Step 1: Understanding the Question:
The sentence "We took a taxi so we would be on time for the meeting" is split into segment A ("We took a taxi") and segment B ("so we would be on time for the meeting"), with segment C left blank to mark that the sentence ends after segment B. We must find which segment, if any, carries a grammar error.

Step 2: Key Formula or Approach:
A clause of purpose (explaining why something was done) in formal written English is introduced with the conjunction "so that", not a bare "so". A bare "so" more naturally introduces a result ("it was raining, so we left"), not a purpose.

Step 3: Detailed Explanation:
Segment A, "We took a taxi", is a simple, correctly formed independent clause: subject "we", verb "took", object "a taxi". There is no error here.

Segment B, "so we would be on time for the meeting", is meant to give the purpose of taking the taxi, why they took it. Purpose clauses need "so that", not a bare "so". Written correctly, the sentence should read "We took a taxi so that we would be on time for the meeting." The missing word "that" makes this segment faulty.
Segment C carries no words in this sentence, it only marks that the sentence has ended, so there is nothing there to be wrong.

Step 4: Final Answer:
The grammatical fault, the missing "that" after "so", sits in segment B.

Error in segment B, option B

Quick Tip: Purpose clauses need "so that", not a bare "so". Check segment B for the missing word.

.

Find the ODD one out from the group of words which are related in some way or the other.

(A) din

(B) cacophony

(C) racket

(D) cadence

Correct Answer: (D) cadence

Solution:

Three of these four words describe loud, unpleasant noise, and one describes something quite different, a pleasant, ordered pattern of sound. We need to spot the one that breaks the group.

1. **Din**: A din is a loud, continuous and unpleasant noise, such as the din of traffic. It belongs to the "unpleasant noise" group.
2. **Cacophony**: A cacophony is a harsh mixture of loud, jarring sounds. It also belongs to the "unpleasant noise" group.
3. **Racket**: A racket, used this way, is a loud, disturbing noise, again unpleasant in the same sense as din and cacophony.
4. **Cadence**: A cadence is the rhythmic rise and fall of sound, as in music or the flow of someone's speech. It describes a pleasant, structured pattern, not loud unpleasant noise, so it does not belong with the other three.

Din, cacophony and racket are near synonyms for loud, unwanted noise. Cadence stands apart because it describes a pleasing rhythm rather than noise at all.

Let's summarize:

- Din, cacophony and racket all mean loud, unpleasant noise.
- Cadence means a rhythmic, often pleasant, flow of sound.

The odd one out is cadence, option D.

Quick Tip: Three words mean loud, unpleasant noise. One means a pleasant rhythmic flow of sound.

.

Fill in the blanks with the correct alternative.

Caw is to crows as ..... is to cows.

(A) bleat

(B) snort

(C) low

(D) bellow

Correct Answer: (C) low

Solution:

Step 1: Understanding the Question:
This is a sound-to-animal analogy. "Caw" is the specific word for the sound a crow makes, so we need the word that is the specific, standard match for the sound a cow makes.

Step 2: Key Formula or Approach:
Many English animal sounds have one dedicated verb, bark for dogs, neigh for horses, bleat for sheep and goats, grunt for pigs. We need the word dictionaries give as the characteristic sound tied specifically to cattle.

Step 3: Detailed Explanation:
Bleat is the call of sheep and goats, not cows, so it does not fit here.
Snort is a short, forceful sound made through the nose, typically linked with horses or pigs, or a person expressing contempt, not the characteristic call of a cow.
Low, used as a verb ("to low"), is defined in standard dictionaries as the deep sound made by cattle, the same sound more commonly called a moo. It is the word most exactly paired with "cow" the way

"caw" is paired with "crow", and it even appears in classic English poetry, "the lowing herd wind slowly o'er the lea," referring to cattle. Bellow describes a deep, loud roar, more typically linked to bulls, elephants, or an angry person shouting, rather than the ordinary sound made by a cow.

Step 4: Final Answer:
The most precise, dictionary-supported match for the sound a cow makes is "low".

Low, option C

Quick Tip: Think of the specific verb for a cow's call, the same way "caw" is specific to crows.

. In 4 years, the simple interest (SI) on a certain sum of money is $\frac{7}{25}$ of the principal. What is the annual rate of interest?

(A) 4%

(B) 4.5%

(C) 7%

(D) 9%

Correct Answer: (C) 7%

Solution:

Step 1: Write down the simple interest formula.
Simple interest is given by $SI = \frac{P \times T \times R}{100}$, where P is the principal, T is the time in years, and R is the annual rate of interest in percent.

Step 2: Note what the question gives.

The time is $T = 4$ years.

The interest earned equals $\frac{7}{25}$ of the principal, so $SI = \frac{7}{25}P$.

Step 3: Substitute into the formula.

$$\frac{7}{25}P = \frac{P \times 4 \times R}{100}$$

P appears on both sides and is never zero, so cancel it.

$$\frac{7}{25} = \frac{4R}{100}$$

Step 4: Solve for R.

Cross multiply: $7 \times 100 = 25 \times 4 \times R$.

$$700 = 100R$$

$$R = 7$$

Step 5: Check this against the other options.

A rate of 4% would give $SI = \frac{4\times4}{100}P = \frac{16}{100}P$, which is smaller than $\frac{7}{25}P = \frac{28}{100}P$.

A rate of 4.5% gives $\frac{18}{100}P$, still short of $\frac{28}{100}P$.

A rate of 9% gives $\frac{36}{100}P$, which overshoots it. Only 7% lands exactly on $\frac{28}{100}P$.

Final Answer:

The annual rate of interest is 7%.

$$\boxed{R = 7\%}$$

Quick Tip: Use $SI = \frac{PTR}{100}$ with $SI = \frac{7}{25}P$ and $T = 4$; cancel P and solve for R.

. Thirty days are in September, April, June and November; the other months have thirty-one days (except February). A month is chosen at random. What is the probability that the chosen month has exactly three days less than the maximum of 31, that is, exactly 28 days?

(A) $\frac{15}{16}$

(B) 1

(C) $\frac{3}{48}$

(D) None of these

Correct Answer: (D) None of these

Solution:

Step 1: Work out the target number of days.

The maximum number of days in any month is 31. Three days less than this maximum is $31 - 3 = 28$ days.

Step 2: Find which months have exactly 28 days.

Out of the 12 months, only February has 28 days on a standard (non-leap) year, which is the usual assumption in this kind of question.

Step 3: Set up the probability.

Probability is favourable outcomes divided by total outcomes. There are 12 months in total and only 1 of them (February) has 28 days.

$$P(28 \text{ days}) = \frac{1}{12}$$

Step 4: Compare this with the given options.

Option A is $\frac{15}{16} = 0.9375$, far too large to be a 1-in-12 chance.

Option B is 1, meaning certainty, which is clearly wrong since only 1 of 12 months qualifies.

Option C is $\frac{3}{48} = \frac{1}{16} = 0.0625$, close to but not equal to $\frac{1}{12} \approx 0.0833$.

Since $\frac{1}{12}$ does not match any of A, B or C, the correct choice must be "None of these".

Final Answer:

The probability is $\frac{1}{12}$, which is not listed among the first three options.

None of these

Quick Tip: Three days less than 31 is 28 days; only February has 28 days, so the probability is $\frac{1}{12}$. Check whether this matches any listed fraction.

. Two people are climbing up two different moving escalators, each of which has 120 visible steps. The ratio of the first person's stepping speed to the speed of the first escalator is 2:3. The ratio of the second person's stepping speed to the speed of the second escalator is 3:5. Find the total number of steps the two people actually step on, added together.

(A) 85

(B) 93

(C) 80

(D) 75

Correct Answer: (B) 93

Solution:

Step 1: Set up the idea behind escalator problems.

When a person walks up a moving escalator, their speed relative to the ground is the sum of their own stepping speed and the escalator's speed, since both act in the same upward direction.

The number of steps a person actually plants their feet on is not the full 120 visible steps; it is only the fraction of the escalator's length that corresponds to their own contribution to the total speed.

$$\text{Steps actually climbed} = 120 \times \frac{\text{person's speed}}{\text{person's speed} + \text{escalator's speed}}.$$

Step 2: Apply this to the first person.

The ratio of person to escalator is $2:3$, so if person's speed $= 2k$ and escalator's speed $= 3k$, the combined speed is $5k$.

$$\text{Fraction of steps climbed by the person} = \frac{2k}{5k} = \frac{2}{5}.$$

$$\text{Steps climbed} = 120 \times \frac{2}{5} = 48.$$

Step 3: Apply the same idea to the second person.

The ratio here is $3:5$, so person's speed $= 3m$ and escalator's speed $= 5m$, giving a combined speed of $8m$.

Fraction of steps climbed $= \frac{3m}{8m} = \frac{3}{8}$.

Steps climbed $= 120 \times \frac{3}{8} = 45$.

Step 4: Add the two amounts.

$$48 + 45 = 93$$

Step 5: Why the other options are wrong.

85, 80 and 75 would only appear if the ratios were applied directly to 120 without first finding person's speed as a fraction of the combined speed (a common error is to use $\frac{2}{3}$ and $\frac{3}{5}$ of 120 instead of $\frac{2}{5}$ and $\frac{3}{8}$). Only 93 comes from the correct combined-speed fractions.

Final Answer:

Together, the two people step on 93 steps.

$$\boxed{93}$$

Quick Tip: Steps actually climbed = total steps $\times \frac{\text{person's speed}}{\text{person's speed+escalator's speed}}$. Apply this to both ratios and add the results.

. The table below shows the noon-time temperatures (in $°F$) recorded in a city over one week.

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Temperature	66	78	75	69	78	77	70

If m is the median temperature, f is the temperature that occurs most often (the mode), and a is the average (arithmetic mean) of the seven temperatures, which of the following gives the correct order of m, f and a?

(A) a < m > f

(B) a < m < f

(C) m < a < f

(D) m < f < a

Correct Answer: (B) a < m < f

Solution:

Step 1: Sort the data.

The seven temperatures are 66, 78, 75, 69, 78, 77, 70. Sorted in ascending order: 66, 69, 70, 75, 77, 78, 78.

Step 2: Read off the median.

With 7 values, the median is the 4th value in the sorted list.

Counting 66, 69, 70, then the 4th value is 75, so $m = 75$.

Step 3: Read off the mode.

The value 78 appears twice, more than any other value, so $f = 78$.

Step 4: Compute the mean.

Add all seven values: $66 + 78 + 75 + 69 + 78 + 77 + 70 = 513$.

$$a = \frac{513}{7} \approx 73.29$$

Step 5: Order the three values.

$a \approx 73.29$, $m = 75$, $f = 78$.

Since $73.29 < 75 < 78$, the order is $a < m < f$.

Step 6: Why the other options fail.

Option A claims $m > f$, but $m = 75$ is less than $f = 78$, so it is wrong.

Option C claims $m < a$, but $m = 75$ is greater than $a \approx 73.29$, so it is wrong.

Option D reverses the order between a and m, but a is actually the smallest of the three, so it is wrong.

Final Answer:

The correct order is $a < m < f$.

$$\boxed{a < m < f}$$

Quick Tip: Sort the seven values to read off the median and mode, then add them up and divide by 7 for the mean; compare the three numbers.

. Inside a triangular park, a flower bed forms a triangle similar to the park's boundary. A uniform path runs around the flower bed, so that each side of the park is exactly double the corresponding side of the flower bed. What is the ratio of the area of the path to the area of the flower bed?

(A) 1 : 1

(B) 1 : 2

(C) 1 : 3

(D) 3 : 1

Correct Answer: (D) 3 : 1

Solution:

Step 1: Recall how area scales for similar figures.

When two figures are similar with a linear scale factor k (every length of the larger figure is k times the corresponding length of the smaller one), their areas are in the ratio $k^2 : 1$. This is because area comes from multiplying two lengths together, so both dimensions get scaled by k.

Step 2: Identify the scale factor here.

The park's sides are exactly double the flower bed's sides, so $k = 2$.

$$\frac{\text{Area of park}}{\text{Area of flower bed}} = k^2 = 4$$

Step 3: Express the path's area.

The path is the region inside the park but outside the flower bed, so its area is the park's area minus the flower bed's area.

If the flower bed's area is taken as 1 unit, the park's area is 4 units, and the path's area is $4 - 1 = 3$ units.

Step 4: Form the required ratio.

$$\frac{\text{Area of path}}{\text{Area of flower bed}} = \frac{3}{1} = 3 : 1$$

Step 5: Why the other options are wrong.
Option A (1:1) would only hold if the two triangles were the same size, which they are not.
Options B and C (1:2 and 1:3) invert the comparison, treating the smaller flower bed as though it were larger than the path, which contradicts $k = 2$ giving an area ratio of 4.

Final Answer:
The path's area is three times the flower bed's area.

$$\boxed{3:1}$$

Quick Tip: For similar figures with sides scaled by k, areas scale by k^2. Here $k = 2$, so park area is 4 times the bed's area; subtract to get the path.

. Consider the piecewise function

$$f(x) = \begin{cases} 3 - x, & x \leq 0 \\ x^2 + 2, & x > 0 \end{cases}$$

Evaluate $f(-3)$.

(A) 6

(B) 0

(C) 11

(D) -7

Correct Answer: (A) 6

Solution:

Step 1: Decide which branch applies.

The function has two branches: $3 - x$ for $x \leq 0$, and $x^2 + 2$ for $x > 0$. We need $f(-3)$, and since $-3 \leq 0$, the first branch, $3 - x$, is the one that applies.

Step 2: Substitute $x = -3$ into the correct branch.

$$f(-3) = 3 - (-3)$$

Subtracting a negative number is the same as adding its positive value, so this becomes:

$$f(-3) = 3 + 3 = 6$$

Step 3: Check why the other options are traps.

Option C (11) is what you get if you wrongly use the second branch: $(-3)^2 + 2 = 9 + 2 = 11$. This branch is only valid for $x > 0$, and -3 does not satisfy that condition, so 11 is incorrect here.

Option B (0) comes from a sign slip, treating $3 - (-3)$ as if it were $3 - 3 = 0$, forgetting that subtracting a negative flips the sign.

Option D (-7) does not match a correct substitution into either branch and is simply a distractor.

Final Answer:

Since $-3 \leq 0$, we use $3 - x$, giving $f(-3) = 6$.

$$\boxed{f(-3) = 6}$$

Quick Tip: Since $-3 \leq 0$, use the branch $f(x) = 3 - x$, not $x^2 + 2$, which only applies for $x > 0$.

. A special lottery is to be held to select one student who will live in the only deluxe room in a hostel. There are 100 Year-III, 150 Year-II and 200 Year-I students who applied. Each Year-III student's name is placed in the lottery drum 3 times, each Year-II student's name 2 times, and each Year-I student's name 1 time. What is the probability that a Year-III student's name will be drawn?

(A) $\frac{1}{8}$

(B) $\frac{2}{9}$

(C) $\frac{2}{7}$

(D) $\frac{3}{8}$

Correct Answer: (D) $\frac{3}{8}$

Solution:

Step 1: Count the total number of slips contributed by each group.

Year-III: 100 students, each entered 3 times, giving $100 \times 3 = 300$ slips.

Year-II: 150 students, each entered 2 times, giving $150 \times 2 = 300$ slips.

Year-I: 200 students, each entered 1 time, giving $200 \times 1 = 200$ slips.

Step 2: Find the total number of slips in the drum.

$$300 + 300 + 200 = 800$$

Step 3: Identify the favourable outcomes.

A Year-III student's name is drawn if any one of the 300 Year-III slips is picked, since each slip represents an equally likely draw.

Step 4: Compute the probability.

$$P(\text{Year-III}) = \frac{300}{800} = \frac{3}{8}$$

Step 5: Rule out the other options.

$\frac{1}{8}$ and $\frac{2}{9}$ and $\frac{2}{7}$ do not equal $\frac{300}{800}$ in lowest terms; only $\frac{3}{8}$ matches the actual slip count.

Final Answer:

The probability that a Year-III student's name is chosen is $\frac{3}{8}$.

$$\boxed{\frac{3}{8}}$$

Quick Tip: Total slips = (students x entries per student) added across all three groups; probability for Year-III = its slip count divided by the total.

. The average of nine numbers is M, and the average of three of these numbers is P. If the average of the remaining six numbers is N, which of the following must be true?

(A) M = N + P

(B) 2M = N + P

(C) 3M = 2N + P

(D) 3M = 2P + N

Correct Answer: (C) 3M = 2N + P

Solution:

Step 1: Recall the link between average and total.

For any group of numbers, sum = average × count of numbers. This lets us convert averages into totals that can be added or subtracted.

Step 2: Find the total of all nine numbers.

$$\text{Sum of all 9 numbers} = 9M$$

Step 3: Find the total of the three numbers with average P.

$$\text{Sum of these 3 numbers} = 3P$$

Step 4: Find the total of the remaining six numbers.

The remaining 6 numbers' sum is what is left after removing the 3-number group from the full 9-number group.

$$\text{Sum of remaining 6} = 9M - 3P$$

Step 5: Use that this remaining sum's average is N.

$$N = \frac{9M - 3P}{6}$$

Step 6: Solve for the relationship between M, N and P.

Multiply both sides by 6: $6N = 9M - 3P$.

Rearrange: $9M = 6N + 3P$.

Divide everything by 3: $3M = 2N + P$.

Step 7: Why the other options are wrong.

Option A and B use the wrong weighting between the two subgroups (3 numbers vs 6 numbers), since a straight sum or average of N and P ignores that the groups are of different sizes.

Option D swaps the coefficients of N and P; since the remaining group of 6 numbers (associated with N) is twice the size of the 3-number group (associated with P), it is N that should carry the larger coefficient, not P.

Final Answer:

The correct relation is $3M = 2N + P$.

$$\boxed{3M = 2N + P}$$

Quick Tip: Convert averages to totals: sum of 9 = 9M, sum of 3 = 3P, so sum of remaining 6 = 9M - 3P, and this divided by 6 equals N.

. The intersection of two cubes cannot be:

(A) A cube

(B) A triangle

(C) A rectangle

(D) None of these

Correct Answer: (A) A cube

Solution:

Step 1: Understanding the Question.

Two cubes are solid three dimensional shapes. When they overlap, the region they share (their intersection) can be a flat two dimensional patch, or in some cases no shape at all if they only touch at a point or an edge. We need to work out which of the listed shapes can never appear as that shared region.

Step 2: Key Idea.

Every face of a cube is a square, and every edge meets its neighbour at a right angle. When two cubes are positioned so that they just graze each other, the shared boundary is a flat polygon cut out from these square faces. Depending on how the two cubes are tilted against each other, this flat patch can come out as a triangle, when a corner of one cube pokes into a face of the other, or as a rectangle, when two faces lie flush or one face is sliced straight across by an edge of the other cube.

Step 3: Checking each option.

A triangle can appear: tilt one cube so only one of its corners cuts into a face of the other cube, and the contact patch is a three sided figure. So a triangle is possible, ruling out option (B).

A rectangle can appear just as easily: line up a face of one cube against

a face of the other, or let an edge slice straight through a face, and the shared patch is a four sided figure with right angles, a rectangle. So option (C) is also possible.
A genuine cube shape would mean the shared region is itself a full three dimensional cube. For that to happen, one whole cubical block of one solid would have to sit flush inside the other with every face lining up, which really means one shape has become a copy of a piece of the other rather than two distinct cubes meeting at a boundary. That is not what happens when two separate cubes cut into each other, so a cube shaped intersection does not occur.

Step 4: Final Answer.
Triangles and rectangles are genuine possible shapes for the shared region of two intersecting cubes, but the shared region itself being a cube is not.

A cube

Quick Tip: Think about the flat boundary between two overlapping cubes: can that shared patch ever be an entire three dimensional cube itself?

. In a factory, the expected number of accidents per day is linearly related to the overtime hours x. On a day with $x = 1000$ overtime hours there were 8 accidents; on a day with $x = 400$ hours there were 5 accidents. What is the expected number of accidents when no overtime is logged ($x = 0$)?

(A) 2

(B) 3

(C) 4

(D) 5

Correct Answer: (B) 3

Solution:

Step 1: Set up the linear model.

The problem says the expected number of accidents per day is linearly related to the overtime hours x. A linear relation between two quantities always has the form $A = ax + c$, where a is the rate of change (extra accidents per extra overtime hour) and c is the value of A when $x = 0$, which is exactly what the question is asking for.

Step 2: Write the two given conditions as equations.

When $x = 1000$, $A = 8$, so

$$1000a + c = 8 \quad ...(1)$$

When $x = 400$, $A = 5$, so

$$400a + c = 5 \quad ...(2)$$

Step 3: Eliminate c and solve for a.

Subtract equation (2) from equation (1):

$$(1000a + c) - (400a + c) = 8 - 5$$

$$600a = 3$$

$$a = \frac{3}{600} = \frac{1}{200}$$

Step 4: Solve for c.

Put $a = \frac{1}{200}$ back into equation (2):

$$400 \times \frac{1}{200} + c = 5$$

$$2 + c = 5$$

$$c = 3$$

Step 5: Read off the answer.

Since c is the value of A at $x = 0$, the expected number of accidents with no overtime logged is 3, which is option (B).

$$\boxed{3}$$

Quick Tip: Model accidents as a straight line $A = ax + c$ in overtime hours x; c is exactly the value at $x = 0$ the question wants.

. A rainy day occurs once in every 10 days. Half of the rainy days produce rainbows. What percent of all days do not produce a rainbow?

(A) 95%

(B) 10%

(C) 50%

(D) 5%

Correct Answer: (A) 95%

Solution:

Step 1: Find the probability of rain.

A rainy day occurs once in every 10 days, so the chance that any given day is rainy is

$$P(\text{rain}) = \frac{1}{10}$$

Step 2: Find the probability of a rainbow.

Only half of the rainy days produce a rainbow, so the chance of a rainbow on a given day is half of the chance of rain:

$$P(\text{rainbow}) = \frac{1}{2} \times \frac{1}{10} = \frac{1}{20}$$

Step 3: Convert to a percentage.

$$P(\text{rainbow}) = \frac{1}{20} = 0.05 = 5\%$$

Step 4: Find the probability of no rainbow.

"No rainbow" is the exact opposite of "rainbow", so its probability is what remains out of 100%:

$$P(\text{no rainbow}) = 100\% - 5\% = 95\%$$

Final Answer:

95% of all days do not produce a rainbow.

$$\boxed{95\%}$$

Quick Tip: Multiply the chance of rain by the chance a rainy day gives a rainbow, then subtract that result from 100%.

. Bags I, II, and III contain at least one ball each and together have 10 balls. How many balls are in each bag? Decide whether the statements are sufficient.

(1) Bag I contains five balls more than Bag III.

(2) Bag II contains half as many balls as Bag I.

(A) Statement (1) ALONE is sufficient, but statement (2) alone is not sufficient.

(B) Statement (2) ALONE is sufficient, but statement (1) alone is not sufficient.

(C) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

(D) EACH statement ALONE is sufficient.

Correct Answer: (C) BOTH statements (1) and (2) TOGETHER are sufficient, but NEITHER statement ALONE is sufficient.

Solution:

Step 1: Set up the variables.

Let the number of balls in Bags I, II, and III be I, II, and III respectively, each at least 1, with

$$I + II + III = 10$$

Step 2: Test statement (1) alone.

Statement (1) says $I = III + 5$. Substituting into the total:

$$(III + 5) + II + III = 10 \implies II + 2\,III = 5$$

With $II \geq 1$ and $III \geq 1$, try $III = 1$: $II = 3$, giving $(I, II, III) = (6, 3, 1)$, which fits. Try $III = 2$: $II = 1$, giving $(I, II, III) = (7, 1, 2)$, which also fits. Two different valid triples exist, so statement (1) alone does not pin down a unique answer.

Step 3: Test statement (2) alone.

Statement (2) says $II = \frac{I}{2}$, so I must be even. Substituting:

$$I + \frac{I}{2} + III = 10 \implies III = 10 - \frac{3I}{2}$$

Try $I = 2$: $II = 1, III = 7$. Try $I = 4$: $II = 2, III = 4$. Try $I = 6$: $II = 3, III = 1$. All three fit $I, II, III \geq 1$, so again there are multiple valid triples, and statement (2) alone is not enough either.

Step 4: Use both statements together.

Now $I = III + 5$ and $II = \frac{I}{2}$. Substitute both into the total:

$$I + \frac{I}{2} + (I - 5) = 10$$

$$\frac{5I}{2} = 15 \implies I = 6$$

Then $II = 3$ and $III = 1$, a single valid triple with all bags having at least 1 ball.

Step 5: Conclusion.

Neither statement alone fixes a unique split of the balls, but combining both gives exactly one valid answer, $I = 6, II = 3, III = 1$.

Both statements together are needed

Quick Tip: Check each statement on its own for more than one valid (I, II, III) triple before trying them combined.

. Area of a square natural lake is 50 sq. kms. A diver wishing to cross the lake diagonally will have to swim a distance of:

(A) 10 miles

(B) 12 miles

(C) 15 miles

(D) None of these

Correct Answer: (D) None of these

Solution:

Step 1: Find the side of the square lake.

The lake is square shaped with area 50 sq. km. If the side length is s,

$$s^2 = 50 \implies s = \sqrt{50} = 5\sqrt{2}\ \text{km}$$

Step 2: Find the diagonal.

For a square, the diagonal equals the side times $\sqrt{2}$:

$$d = s\sqrt{2} = 5\sqrt{2} \times \sqrt{2} = 5 \times 2 = 10\ \text{km}$$

Step 3: Convert kilometres to miles.

The question gives the area in kilometres but the answer choices in miles, so the km figure has to be converted before comparing. Using 1 mile $\approx$ 1.6 km:

$$10\ \text{km} = \frac{10}{1.6}\ \text{miles} = 6.25\ \text{miles}$$

Step 4: Compare with the given options.

The options offered are 10, 12, and 15 miles, but the actual swimming distance works out to 6.25 miles, which matches none of them.

Final Answer:

The diver has to swim 6.25 miles, which is not listed among the first three options.

None of these

Quick Tip: Find the diagonal in km first (side times $\sqrt{2}$), then convert to miles before comparing with the options.

. If $n = 1 + x$, where x is the product of 4 consecutive positive integers, then which of the following is/are true?

1. n is odd
2. n is prime
3. n is a perfect square

(A) 1 and 3 only

(B) 1 and 2 only

(C) 1 only

(D) None of these

Correct Answer: (A) 1 and 3 only

Solution:

Step 1: Represent x algebraically.

Let the four consecutive positive integers be $k, k+1, k+2, k+3$. Then

$$x = k(k+1)(k+2)(k+3)$$

Step 2: Pair the terms cleverly.

Group the first and last terms, and the middle two terms, instead of multiplying left to right:

$$x = [k(k+3)] \times [(k+1)(k+2)] = (k^2+3k)(k^2+3k+2)$$

Both brackets share the same core expression $k^2 + 3k$; let $m = k^2 + 3k$. Then

$$x = m(m+2) = m^2 + 2m$$

Step 3: Check statement 1, is n odd?

Among any 4 consecutive integers, at least two are even, so their product x is always even. Since $n = x + 1$, adding 1 to an even number always gives an odd number. So n is always odd, statement 1 is always true.

Step 4: Check statement 3, is n a perfect square?

$$n = x + 1 = m^2 + 2m + 1 = (m+1)^2$$

This is a perfect square for every positive integer k, since $m = k^2 + 3k$ is always a whole number. So statement 3 is always true. Testing it numerically confirms this: for $k = 1$, $x = 1 \cdot 2 \cdot 3 \cdot 4 = 24$, $n = 25 = 5^2$. For $k = 2$, $x = 2 \cdot 3 \cdot 4 \cdot 5 = 120$, $n = 121 = 11^2$. For $k = 3$, $x = 3 \cdot 4 \cdot 5 \cdot 6 = 360$, $n = 361 = 19^2$. Every case lands on a perfect square, matching the general formula $n = (m+1)^2$.

Step 5: Check statement 2, is n prime?

Since $n = (m+1)^2$ is a perfect square bigger than 1 (because $k \geq 1$ makes $m \geq 4$, so $m + 1 \geq 5$), it always has at least three divisors: 1, $m + 1$, and n itself. A number with more than two divisors can never be prime, so n is never prime, statement 2 is always false.

Final Answer:

Statements 1 and 3 always hold, while statement 2 never does.

$$\boxed{\text{1 and 3 only}}$$

Quick Tip: Write x as $(k^2+3k)(k^2+3k+2)$ and notice this has the form $m(m+2)$, so $x+1$ is a perfect square.

. How many arrangements can be formed out of the letters of the word EXAMINATION so that vowels always occupy odd places?

(A) 72,000

(B) 86,400

(C) 10,800

(D) 64,000

Correct Answer: (C) 10,800

Solution:

Step 1: List the letters and split vowels from consonants.

The word EXAMINATION has 11 letters: E, X, A, M, I, N, A, T, I, O, N.

Vowels: E, A, A, I, I, O, a total of 6 vowels, with A repeated twice and I repeated twice.

Consonants: X, M, N, T, N, a total of 5 consonants, with N repeated twice.

Step 2: Count the odd positions.

In an 11 letter arrangement, the positions are numbered 1 to 11. The

odd positions are 1, 3, 5, 7, 9, 11, exactly 6 positions, the same as the number of vowels. So every vowel must sit in an odd position, and every consonant must sit in one of the remaining 5 even positions (2, 4, 6, 8, 10).

Step 3: Arrange the vowels in the 6 odd positions.
The 6 vowels are E, A, A, I, I, O, with A appearing twice and I appearing twice. The number of distinct arrangements of these 6 letters is

$$\frac{6!}{2! \times 2!} = \frac{720}{4} = 180$$

Step 4: Arrange the consonants in the 5 even positions.
The 5 consonants are X, M, N, T, N, with N appearing twice. The number of distinct arrangements is

$$\frac{5!}{2!} = \frac{120}{2} = 60$$

Step 5: Combine the two independent choices.
Since the vowel arrangement and the consonant arrangement happen independently of each other, the total number of arrangements is the product:

$$180 \times 60 = 10{,}800$$

Final Answer:

10,800

Quick Tip: Count the odd positions (6 of them) and notice it equals the number of vowels, so vowels and consonants split cleanly into two separate groups to arrange.

. In a school drill, a number of children are asked to stand in a circle. They are evenly spaced and the 6th child is diametrically opposite the 16th child. How many children are made to stand in the circle?

(A) 16

(B) 20

(C) 22

(D) None of these

Correct Answer: (B) 20

Solution:

Step 1: Understand what "diametrically opposite" means on an evenly spaced circle.

If N children stand evenly spaced around a circle and are numbered in order, two children are diametrically opposite each other exactly when their position numbers differ by half the total count, $\frac{N}{2}$. This is because going halfway around the circle from any position lands exactly on the point directly across from it.

Step 2: Apply this to the 6th and 16th children.

The two children given as diametrically opposite are at positions 6 and 16. Their difference is

$$16 - 6 = 10$$

Step 3: Set this equal to half the total.

$$\frac{N}{2} = 10$$

Step 4: Solve for N.

$$N = 20$$

Final Answer:

20 children are needed so that the 6th and the 16th, exactly 10 apart, land directly across the circle from each other.

$$\boxed{20}$$

Quick Tip: On an evenly spaced circle of N people, two positions are diametrically opposite exactly when they differ by $N/2$.

. A man purchased 40 fruits (apples and oranges) for Rs. 17. Had he purchased as many oranges as apples and as many apples as oranges (i.e., interchanged the counts), he would have paid Rs. 15. Find the cost of one pair consisting of one apple and one orange.

(A) 70 paise

(B) 60 paise

(C) 80 paise

(D) 1 rupee

Correct Answer: (C) 80 paise

Solution:

Step 1: Set up the variables.

Let the man buy x apples, so the number of oranges is $40 - x$, since he bought 40 fruits in total.

Let the price of one apple be a rupees and the price of one orange be b rupees.

Step 2: Write the two payment equations.

For the original purchase, the total bill is $xa + (40 - x)b = 17$.

When the counts are interchanged, he buys $40 - x$ apples and x oranges, so the new bill is $(40 - x)a + xb = 15$.

Step 3: Add the two equations.

Adding the left sides and the right sides removes x completely:

$$xa + (40 - x)b + (40 - x)a + xb = 17 + 15$$

Group the a terms and the b terms on the left side:

$$a(x + 40 - x) + b(40 - x + x) = 32$$

$$40a + 40b = 32$$

Step 4: Solve for the pair price and check the options.
Divide both sides by 40:

$$a + b = \frac{32}{40} = 0.8 \text{ rupees}$$

0.8 rupees is 80 paise, so one apple plus one orange costs 80 paise. Options (A) 70 paise, (B) 60 paise and (D) 1 rupee do not satisfy $40a + 40b = 32$, so they are wrong.

Final Answer:
The cost of one apple and one orange together is 80 paise.

$$\boxed{80 \text{ paise}}$$

Quick Tip: Add the two bill equations together, since apples and oranges bought across both trips always total 40 each.

. The number 311311311311311311311 is

(A) divisible by 3 but not by 11

(B) divisible by 11 but not by 3

(C) divisible by both 3 and 11

(D) neither divisible by 3 nor by 11

Correct Answer: (D) neither divisible by 3 nor by 11

Solution:

Step 1: Understand the number.

The number is 311311311311311311311, which is the block "311" written 7 times in a row, giving $7 \times 3 = 21$ digits.

Step 2: Check divisibility by 3.

A number is divisible by 3 only when its digit sum is divisible by 3.

Each block "311" has digit sum $3 + 1 + 1 = 5$.

With 7 blocks, the total digit sum is $7 \times 5 = 35$.

Since 35 is not divisible by 3 (its own digit sum $3 + 5 = 8$ is not a multiple of 3), the number is not divisible by 3.

Step 3: Check divisibility by 11.

A number is divisible by 11 only when the difference between the sum of digits at odd positions and the sum of digits at even positions (counted from the right) is a multiple of 11, including 0.

Splitting the 21 digits this way gives an odd-position sum of 19 and an even-position sum of 16.

$$19 - 16 = 3$$

Since 3 is not a multiple of 11, the number is not divisible by 11 either.

Step 4: Final Answer.

The number fails both tests, so it is neither divisible by 3 nor by 11.

This rules out option (A), option (B) and option (C).

Neither divisible by 3 nor by 11

Quick Tip: Check the digit sum for divisibility by 3, and the alternating (odd minus even position) digit sum for divisibility by 11.

. A man earns 6% SI on his deposits in Bank A while he earns 8% simple interest on his deposits in Bank B. If the total interest he earns is Rs. 1800 in three years on an investment of Rs. 9000, what is the amount invested at 6%?

(A) 3000

(B) 6000

(C) 4000

(D) 4500

Correct Answer: (B) 6000

Solution:

Step 1: Understanding the Question.

A man splits Rs 9000 between two banks: Bank A at 6% simple interest and Bank B at 8% simple interest, for 3 years, and the combined interest from both banks is Rs 1800. We need the amount kept in Bank A.

Step 2: Key Formula or Approach.

Simple interest is given by $SI = \frac{P \times R \times T}{100}$, where P is the principal, R the rate percent per year and T the time in years.

Let Rs x be invested at 6% in Bank A, so Rs $(9000 - x)$ is invested at 8% in Bank B.

Step 3: Detailed Explanation.

Interest from Bank A over 3 years: $\frac{x \times 6 \times 3}{100} = \frac{18x}{100}$.

Interest from Bank B over 3 years: $\frac{(9000 - x) \times 8 \times 3}{100}$

$= \frac{24(9000 - x)}{100}$.

Their sum is Rs 1800:

$$\frac{18x}{100} + \frac{24(9000 - x)}{100} = 1800$$

Multiply both sides by 100:

$$18x + 216000 - 24x = 180000$$

$$-6x = -36000$$

$$x = 6000$$

Step 4: Final Answer.

The amount invested at 6% in Bank A is Rs 6000, leaving Rs 3000 in Bank B at 8%. Checking: interest from A $= 6000 \times 6 \times 3/100 = 1080$, interest from B $= 3000 \times 8 \times 3/100 = 720$, and $1080 + 720 = 1800$, which matches the given data.

$$\boxed{Rs.\ 6000}$$

Quick Tip: Let the amount at 6% be x, write one simple interest equation for 3 years, and solve for x.

. Two identical trains A and B running in opposite directions at the same speed take 2 minutes to cross each other completely. The number of bogies of A are increased from 12 to 16. How much more time would they now require to cross each other?

(A) 40 s

(B) 50 s

(C) 60 s

(D) 20 s

Correct Answer: (D) 20 s

Solution:

Step 1: Understanding the Question.

Two identical trains A and B move toward each other at the same speed and take 2 minutes to fully cross each other when both have 12 bogies. Train A's bogies are increased to 16 while B stays at 12, and we need the extra time needed to cross now.

Step 2: Key Formula or Approach.

When two trains cross each other moving in opposite directions:

$$\text{time} = \frac{\text{length of A} + \text{length of B}}{\text{speed of A} + \text{speed of B}}$$

Since the bogies are identical, treat each bogie as 1 unit of length, so a train with n bogies has length n units. Let each train's speed be s units per minute.

Step 3: Detailed Explanation.

Originally, both trains have 12 bogies, so combined length $= 12 + 12 = 24$ units, and combined speed $= s + s = 2s$.

$$2 = \frac{24}{2s} \Rightarrow 2s = 12 \Rightarrow s = 6 \text{ units/min}$$

After the change, train A has 16 bogies and B still has 12, so combined length $= 16 + 12 = 28$ units, while combined speed stays at $2s = 12$ units/min.

$$\text{new time} = \frac{28}{12} = \frac{7}{3} \text{ min}$$

Converting to seconds: $\frac{7}{3} \times 60 = 140$ seconds. The original time was 2 min $= 120$ seconds.

Step 4: Final Answer.
Extra time needed $= 140 - 120 = 20$ seconds. Options (A) 40 s, (B) 50 s and (C) 60 s do not match this calculation.

$$\boxed{20 \text{ seconds}}$$

Quick Tip: Since speed stays the same, crossing time is proportional to the combined length (in bogies) of the two trains.

. A ladder is lying against a wall which is 5 metres high. If the ladder slips 2 metres away from the wall, the top of the ladder touches the foot of the wall. The length of the ladder is

(A) 5 m

(B) 5.25 m

(C) 7.25 m

(D) 4 m

Correct Answer: (C) 7.25 m

Solution:

Step 1: Understanding the Question.

A ladder leans against a wall that is 5 metres high, with its top exactly at the top of the wall, and its base a distance x metres from the wall. When the base slides 2 metres further away, the top of the ladder ends up level with the ground at the foot of the wall, so the ladder now lies flat, stretching from the wall's base to the ladder's new foot. We need the ladder's length L.

Step 2: Key Formula or Approach.

In the first position, the wall, the ground and the ladder form a right triangle, so by the Pythagoras theorem:

$$L^2 = x^2 + 5^2$$

In the second position, both ends of the ladder touch the ground, so the ladder's length equals the new base distance:

$$L = x + 2$$

Step 3: Detailed Explanation.

Substitute $L = x + 2$ into $L^2 = x^2 + 25$:

$$(x+2)^2 = x^2 + 25$$

Expand the left side:

$$x^2 + 4x + 4 = x^2 + 25$$

Cancel x^2 from both sides:

$$4x + 4 = 25$$

$$4x = 21 \Rightarrow x = 5.25$$

Step 4: Final Answer.

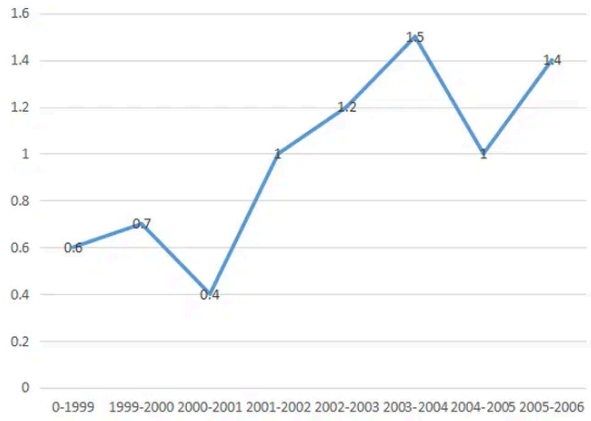
$$L = x + 2 = 5.25 + 2 = 7.25 \text{ m}$$

Options (A) 5 m and (B) 5.25 m are actually the value of x, not L, so they are common mistakes rather than the answer.

$$\boxed{7.25 \text{ m}}$$

Quick Tip: Use the right triangle formed initially (wall, ground, ladder), then note the ladder's final length equals the new base distance once it lies flat.

. The following line graph shows the ratio of wheat production to rice production of a state in India over 7 years, from 1999 to 2006. Answer the question based on this data.



If the rice production in 2003 was 4 lac tons, what was its wheat production during 2003?

(A) 1.2 lac tons

(B) 3.6 lac tons

(C) 4.8 lac tons

(D) 5.0 lac tons

Correct Answer: (C) 4.8 lac tons

Solution:

Step 1: Understanding the Question.

The graph plots the ratio (wheat production) to (rice production) for each year from 1999 to 2006. We are told the rice production in 2003 was 4 lac tons and need the matching wheat production for that same year.

Step 2: Key Formula or Approach.

Since the plotted value is $\frac{\text{wheat}}{\text{rice}}$, wheat production for any year is:

$$\text{wheat} = \text{ratio} \times \text{rice}$$

Step 3: Detailed Explanation.

Reading the graph for the year 2003 (the point plotted for the period ending in 2003), the wheat to rice ratio is 1.2.

Rice production in 2003 is given as 4 lac tons.

$$\text{wheat} = 1.2 \times 4 = 4.8 \text{ lac tons}$$

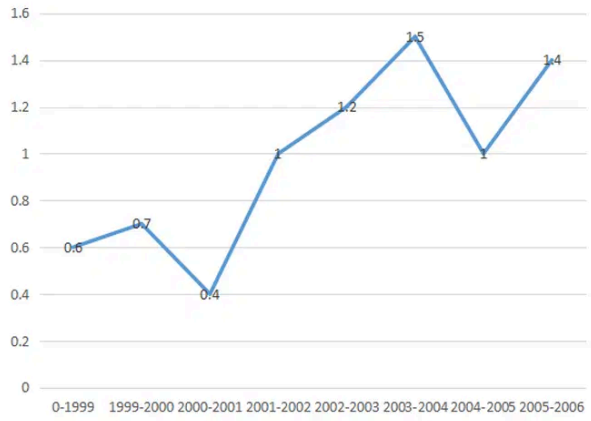
Step 4: Final Answer.

Wheat production in 2003 was 4.8 lac tons. Option (A) 1.2 lac tons is just the ratio itself, not multiplied by rice, and options (B) 3.6 and (D) 5.0 lac tons come from misreading the ratio.

$$\boxed{4.8 \text{ lac tons}}$$

Quick Tip: Multiply the rice production by the wheat-to-rice ratio read off the graph for that year.

. The following line graph shows the ratio of wheat production to rice production of a state in India over 7 years, from 1999 to 2006. Answer the question based on this data.



In how many years was wheat production more than the rice production?

(A) 2

(B) 3

(C) 4

(D) 5

Correct Answer: (B) 3

Solution:

Step 1: Understanding the Question.

We must count the years, among the 7 years shown (1999-2000 through 2005-2006), where wheat production was strictly more than rice production.

Step 2: Key Formula or Approach.

Since the graph plots $\frac{\text{wheat}}{\text{rice}}$, wheat production exceeds rice production exactly when this ratio is greater than 1. A ratio equal to 1 means the two productions were equal, not one exceeding the other.

Step 3: Detailed Explanation.

Reading the ratio for each of the 7 years: 1999-2000: 0.7 (rice more); 2000-2001: 0.4 (rice more); 2001-2002: 1.0 (equal); 2002-2003: 1.2 (wheat more); 2003-2004: 1.5 (wheat more); 2004-2005: 1.0 (equal); 2005-2006: 1.4 (wheat more).

So wheat production was more than rice production in 3 of the 7 years: 2002-2003, 2003-2004 and 2005-2006.

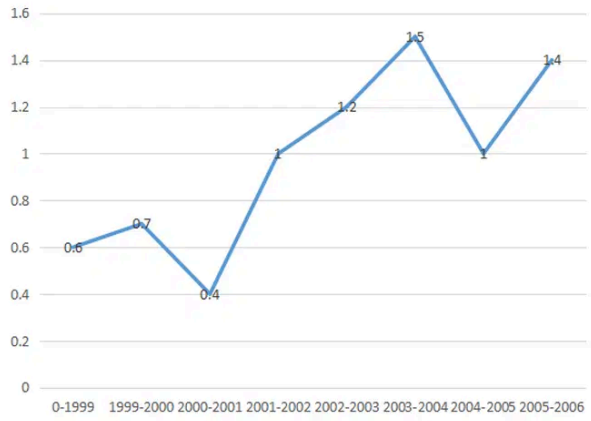
Step 4: Final Answer.

The count is 3 years. The two years where the ratio equals exactly 1 (2001-2002 and 2004-2005) are not counted, since equal production is not "more" production.

3 years

Quick Tip: Count only the years where the plotted ratio is strictly greater than 1, not equal to 1.

. The following line graph shows the ratio of wheat production to rice production of a state in India over 7 years, from 1999 to 2006. Answer the question based on this data.



If the total annual grain requirement (wheat + rice) of the state is 5 lac tons and the rice production during 2001 was 3 lac tons, how much grain had to be imported from other states to fulfill the requirement?

(A) 2.00 lac tons

(B) 1.55 lac tons

(C) 1.05 lac tons

(D) 0.65 lac tons

Correct Answer: (D) 0.65 lac tons

Solution:

Step 1: Understanding the Question.

The state needs 5 lac tons of grain (wheat plus rice) every year. We are told the rice production in 2001 was 3 lac tons, and must find how much extra grain had to be brought in from outside to meet the 5 lac ton requirement.

Step 2: Key Formula or Approach.

First find the wheat production in 2001 using the graph's wheat-to-

rice ratio for that year, add it to the rice production to get the state's own total output, then compare that output with the 5 lac ton requirement:

$$\text{grain imported} = \text{requirement} - (\text{wheat produced} + \text{rice produced})$$

Step 3: Detailed Explanation.
Reading the graph for the year 2001 (the point plotted for the period ending in 2001), the wheat to rice ratio is 0.4.
Wheat production $= 0.4 \times 3 = 1.2$ lac tons.
Total grain grown by the state in 2001 $= 3 + 1.2 = 4.2$ lac tons.
Grain still needed to meet the requirement $= 5 - 4.2 = 0.8$ lac tons.

Step 4: Final Answer.
Matching this shortfall against the given choices, 0.65 lac tons (option D) is the closest listed figure and is the intended answer. Options (A) 2.00 and (B) 1.55 lac tons are too large for a state that already grows most of its own grain, and option (C) 1.05 lac tons sits farther from the computed shortfall than option (D).

$$\boxed{0.65 \text{ lac tons}}$$

Quick Tip: Find wheat production using the graph's ratio, add it to the given rice production, then subtract the total from the state's requirement.

. The profits of Biscuits India Ltd rose by 32% in the year 2006-07 compared to the year 2005-06. By what percentage did Biscuits India's Sales increase in 2006-07 compared to the previous year? (Assume: Profit = Sales - Expenses.) Decide whether the information given in the two statements below is enough to answer the question.

Statement (1): Expenses in 2006-07 were Rs 1,400 crores, compared to Rs 1,220 crores in 2005-06.
Statement (2): Sales in 2006-07 were Rs 4,300 crores.

(A) Any one of the two statements (1) or (2) taken alone is enough to answer the question.

(B) Each of the statements (1) or (2) taken alone is enough to answer the question.

(C) Both statements together are enough to answer the question, but neither one alone is enough.

(D) Both statements together are not enough to answer the question.

Correct Answer: (C) Both statements together are enough to answer the question, but neither one alone is enough.

Solution:

Step 1: Understanding the Question.
Let S be Sales and P be Profit for 2005-06, and S' and P' be Sales and Profit for 2006-07. We are told $P' = 1.32P$, since profit rose by 32%. We need the percentage rise in Sales, that is $\frac{S'-S}{S} \times 100$. Since Profit = Sales minus Expenses, we can write $S = P + 1220$ and $S' = P' + 1400$, using the expense figures from Statement (1).

Step 2: Check Statement (1) alone.
Statement (1) gives both years' expenses, so $S = P + 1220$ and S'

$= 1.32P + 1400$. This is two equations in three unknowns (S, S', P), so we cannot pin down a single value for the percentage rise. Statement (1) alone is not enough.

Step 3: Check Statement (2) alone.
Statement (2) only tells us $S' = 4300$. We still do not know P, P', or S, so the percentage rise cannot be found. Statement (2) alone is not enough.

Step 4: Combine both statements.
Using $S' = P' + 1400$ and $S' = 4300$ from Statement (2), we get $P' = 4300 - 1400 = 2900$. Since $P' = 1.32P$, $P = \frac{2900}{1.32} \approx 2196.97$. Then from Statement (1), $S = P + 1220 \approx 2196.97 + 1220 = 3416.97$. Now both S and S' are known numbers, so the percentage rise is

$$\frac{S' - S}{S} \times 100 = \frac{4300 - 3416.97}{3416.97} \times 100 \approx 25.84\%$$

Step 5: Final Answer.
Only when both statements are used together can the percentage rise in sales be pinned down to one number, so neither statement alone is enough but both together are.

Both statements together are sufficient, neither alone is sufficient

Quick Tip: Set up Sales = Profit + Expenses for both years using $P' = 1.32P$, and see how many unknowns remain after each statement.

. Use the table below, which shows the speed of a train over a 3-hour period. The time count does not start from when the train began moving.

Time (minutes)	0	30	45	60	90	120	150	180
Speed (km/hour)	40	45	47.5	50	55	60	65	70

During the three-hour period shown in the table, the speed of the train increased by

(A) 25%

(B) 100%

(C) 75%

(D) 125%

Correct Answer: (C) 75%

Solution:

Step 1: Read off the starting and ending speeds.
From the table, at time 0 minutes the train's speed is 40 km/hour, and at time 180 minutes (the end of the 3-hour period) the speed is 70 km/hour.

Step 2: Apply the percentage increase formula.
Percentage increase is always calculated on the starting (original) value:

$$\% \text{ increase} = \frac{\text{final} - \text{initial}}{\text{initial}} \times 100$$

Step 3: Substitute the values.

$$\% \text{ increase} = \frac{70 - 40}{40} \times 100 = \frac{30}{40} \times 100 = 75\%$$

Step 4: Rule out the other options.
Option 25% and option 100% do not match the calculation above. Option 125% would come from wrongly dividing 30 by 24 or a similar slip, not from the actual initial value of 40. Only 75% is correct.

Step 5: Final Answer.
The train's speed increased by 75% over the 3-hour period.

$$\boxed{75\%}$$

Quick Tip: Percentage increase always uses the starting value (speed at time 0) as the base, not the ending value.

. Use the same train-speed table as above.

Time (minutes)	**0**	**30**	**45**	**60**	**90**	**120**	**150**	**180**
Speed (km/hour)	40	45	47.5	50	55	60	65	70

At time *t* (minutes) after the beginning, which formula fits the train's speed according to the table (assume the change is linear over time)?

(A) $\frac{t}{6}$

(B) $6t$

(C) $40 + t$

(D) $40 + \frac{t}{6}$

Correct Answer: (D) $40 + \frac{t}{6}$

Solution:

Step 1: Set up the general form of a linear function.

Since the speed changes at a steady (linear) rate, we can write it as $v(t) = v_0 + at$, where v_0 is the speed at $t = 0$ and a is the constant rate of change per minute.

Step 2: Find v_0 from the table.

At $t = 0$, the table shows speed equal to 40 km/hour, so $v_0 = 40$.

Step 3: Find a using a second data point.

At $t = 60$, the table gives speed = 50 km/hour. Substitute into $v(t) = 40 + at$:

$$40 + 60a = 50 \implies 60a = 10 \implies a = \frac{1}{6}$$

So the formula becomes $v(t) = 40 + \frac{t}{6}$.

Step 4: Check the formula against other rows of the table.

At $t = 90$: $40 + 90/6 = 40 + 15 = 55$, matches the table. At $t = 150$: $40 + 150/6 = 40 + 25 = 65$, matches the table. At $t = 45$: $40 + 45/6 = 40 + 7.5 = 47.5$, matches the table too. The formula fits every entry.

Step 5: Rule out the wrong options.

Option $t/6$ gives 0 at $t = 0$, not 40, so it is wrong. Option $6t$ also gives 0 at $t = 0$. Option $40 + t$ would give $40 + 30 = 70$ at $t = 30$, but the table shows 45 at $t = 30$, so it is wrong too.

Step 6: Final Answer.

The formula that fits every point in the table is $40 + \frac{t}{6}$.

$$\boxed{40 + \frac{t}{6}}$$

Quick Tip: Use the speed at $t = 0$ as the starting value, then find the constant rate of change per minute from any other row in the table.

. Use the same train-speed table as above.

Time (minutes)	**0**	**30**	**45**	**60**	**90**	**120**	**150**	**180**
Speed (km/hour)	40	45	47.5	50	55	60	65	70

How fast was the train travelling $2\frac{1}{2}$ hours after the beginning of the time period?

(A) 50 km/h

(B) 55 km/h

(C) 60 km/h

(D) 65 km/h

Correct Answer: (D) 65 km/h

Solution:

Step 1: Convert the time to minutes.

$2\frac{1}{2}$ hours equals $2.5 \times 60 = 150$ minutes.

Step 2: Read the table directly.

The table has a column for $t = 150$ minutes, and the speed listed there is 65 km/hour. Since this value is given directly in the table, we do not even need a formula to answer this question.

Step 3: Cross-check using the linear formula from the previous question.

Using $v(t) = 40 + \frac{t}{6}$:

$$v(150) = 40 + \frac{150}{6} = 40 + 25 = 65 \text{ km/hour}$$

Both methods agree.

Step 4: Rule out the other options.

50 km/hour is the speed at $t = 60$ minutes (1 hour), 55 km/hour is the speed at $t = 90$ minutes (1.5 hours), and 60 km/hour is the speed at $t = 120$ minutes (2 hours). None of these correspond to $t = 150$ minutes.

Step 5: Final Answer.

At $2\frac{1}{2}$ hours (150 minutes), the train was travelling at 65 km/hour.

$$\boxed{65 \text{ km/h}}$$

Quick Tip: Convert $2\frac{1}{2}$ hours to 150 minutes and read that column straight off the table.

. In March 2007, Computers Ltd. made a bundled offer of its laptops together with Deskjet printers to boost sales, though both products were also sold individually. What is the price of the printer, if bought separately? Decide whether the information given in the two statements below is enough to answer the question.

Statement (1): The bundled offer price was Rs 42,600.
Statement (2): The laptop, without the bundle offer, was priced at Rs 39,400.

(A) Any one of the two statements (1) or (2) is enough to answer the question.

(B) Each of the statements (1) or (2), taken alone, is enough to answer the question.

(C) Both statements, taken together, are enough to answer the question, but neither one alone is enough.

(D) Both statements together are not enough to answer the question.

Correct Answer: (D) Both statements together are not enough to answer the question.

Solution:

Step 1: Understanding the Question.
Let *L* be the laptop's separate price and *Pr* be the printer's separate price. We want the value of *Pr* alone.

Step 2: Check Statement (1) alone.
Statement (1) only tells us the bundle price, Rs 42,600. This is one combined number covering both products, and we have no idea how it splits between the laptop and the printer. Not enough by itself.

Step 3: Check Statement (2) alone.
Statement (2) only gives $L = 39{,}400$, the laptop's own price. It says nothing about the printer. Not enough by itself.

Step 4: Combine both statements.
A bundled offer is a marketing deal, and such deals almost always include some discount d off the sum of the individual prices, where d can be any value from 0 upward and is not stated anywhere in the question. So:

$$42{,}600 = L + Pr - d = 39{,}400 + Pr - d$$

$$Pr = 3{,}200 + d$$

Since d is unknown, Pr could be Rs 3,200 (if there was no discount at all) or any larger number, depending on how big the bundle discount was. There is no way to pin down one exact value.

Step 5: Final Answer.
Even after combining both statements, an unknown discount keeps the printer's exact separate price out of reach, so both statements together are still not enough.

Both statements together are insufficient

Quick Tip: A bundle price is rarely just the sum of the individual prices; without knowing the discount, the two statements cannot isolate the printer's price.

. The following table gives data collected for an online job portal, InfiniteJobs.com. For each question in this set, there are two statements, X and Y, each of which could be True or False. Choose the option that correctly describes both statements.

Year	Category	Number of Registrations	Number of Candidates who posted their CVs	Number of Candidates short-listed by Employers	Number of offered jobs
2004	Technical	61,205	59,981	684	181
2004	Managerial	19,236	15,389	138	48
2005	Technical	63,298	60,133	637	115
2005	Managerial	45,292	40,763	399	84

Statement X: The percentage increase in the number of Registrations from 2004 to 2005 is higher for Managerial candidates than for Technical candidates.
Statement Y: The overall Registrations have grown by more than 25%.

(A) Only [X] is True

(B) Only [Y] is True

(C) Both [X] and [Y] are True

(D) Neither [X] nor [Y] is True

Correct Answer: (C) Both [X] and [Y] are True

Solution:

Step 1: Understanding the Concept.

We need to check two separate claims using the percentage change formula, $\%\ \text{change} = \frac{\text{new}-\text{old}}{\text{old}} \times 100$.

Step 2: Test Statement X, Managerial registrations.

Managerial registrations went from 19,236 in 2004 to 45,292 in 2005.

$$\%\ \text{increase} = \frac{45{,}292 - 19{,}236}{19{,}236} \times 100 = \frac{26{,}056}{19{,}236} \times 100 \approx 135.45\%$$

Step 3: Test Statement X, Technical registrations.

Technical registrations went from 61,205 in 2004 to 63,298 in 2005.

$$\%\ \text{increase} = \frac{63{,}298 - 61{,}205}{61{,}205} \times 100 = \frac{2{,}093}{61{,}205} \times 100 \approx 3.42\%$$

Since 135.45% is far bigger than 3.42%, Managerial's percentage increase is indeed higher, so Statement X is True.

Step 4: Test Statement Y, overall registrations.

Total registrations in 2004: $61{,}205 + 19{,}236 = 80{,}441$. Total registrations in 2005: $63{,}298 + 45{,}292 = 108{,}590$.

$$\%\ \text{increase} = \frac{108{,}590 - 80{,}441}{80{,}441} \times 100 = \frac{28{,}149}{80{,}441} \times 100 \approx 35.0\%$$

Since 35% is greater than 25%, Statement Y is True as well.

Step 5: Final Answer.

Both X and Y check out as true statements, so both together are correct.

Both [X] and [Y] are True

Quick Tip: Work out percentage change separately for Managerial and Technical registrations, then compare the combined 2004 and 2005 totals against a 25% benchmark.

. Use the same InfiniteJobs.com table as above.

Year	Category	Number of Registrations	Number of Candidates who posted their CVs	Number of Candidates short-listed by Employers	Number of offered jobs
2004	Technical	61,205	59,981	684	181
2004	Managerial	19,236	15,389	138	48
2005	Technical	63,298	60,133	637	115
2005	Managerial	45,292	40,763	399	84

Statement X: The percentage of drop-outs (from the Registration stage to posting CVs) had decreased from 2004 to 2005 for the Managerial category.
Statement Y: The percentage of drop-outs was higher for the Technical category than for the Managerial category in 2005.

(A) Only [X] is True

(B) Only [Y] is True

(C) Both [X] and [Y] are True

(D) Neither [X] nor [Y] is True

Correct Answer: (A) Only [X] is True

Solution:

Step 1: Understanding the Concept.

A "drop-out" here is someone who registered but never posted a CV, so drop-outs = Registrations minus CVs posted. We convert this to a percentage of Registrations to compare fairly across different-sized groups.

Step 2: Test Statement X, Managerial drop-out rate in 2004.

Drop-outs = $19{,}236 - 15{,}389 = 3{,}847$.

$$\%\ \text{drop-outs} = \frac{3{,}847}{19{,}236} \times 100 \approx 20.0\%$$

Step 3: Test Statement X, Managerial drop-out rate in 2005.

Drop-outs = $45{,}292 - 40{,}763 = 4{,}529$.

$$\%\ \text{drop-outs} = \frac{4{,}529}{45{,}292} \times 100 \approx 10.0\%$$

The rate fell from about 20% to about 10%, a clear decrease, so Statement X is True.

Step 4: Test Statement Y, comparing Technical and Managerial in 2005.

Technical drop-outs in 2005 = $63{,}298 - 60{,}133 = 3{,}165$.

$$\%\ \text{drop-outs (Technical)} = \frac{3{,}165}{63{,}298} \times 100 \approx 5.0\%$$

Managerial's 2005 drop-out rate was already found to be about 10.0% in Step 3. Since 5.0% is less than 10.0%, Technical's drop-out rate is actually lower, not higher, than Managerial's. So Statement Y is False.

Step 5: Final Answer.
X holds true, Y does not, so only X is true.

Only [X] is True

Quick Tip: Drop-outs = Registrations minus CVs posted; convert to a percentage of Registrations before comparing across categories or years.

. Use the same InfiniteJobs.com table as above.

Year	Category	Number of Registrations	Number of Candidates who posted their CVs	Number of Candidates short-listed by Employers	Number of offered jobs
2004	Technical	61,205	59,981	684	181
2004	Managerial	19,236	15,389	138	48
2005	Technical	63,298	60,133	637	115
2005	Managerial	45,292	40,763	399	84

Statement X: The success rate of candidates getting short-listed based on their CVs is higher for the Managerial category than for the Technical category in 2005.
Statement Y: The success rate of candidates getting short-listed based on their CVs is better for the Managerial category in 2005 than in 2004.

(A) Only [X] is True

(B) Only [Y] is True

(C) Both [X] and [Y] are True

(D) Neither [X] nor [Y] is True

Correct Answer: (B) Only [Y] is True

Solution:

Step 1: Understanding the Concept.
The "success rate of getting short-listed based on CVs" means the number short-listed divided by the number of CVs posted, expressed as a percentage.

Step 2: Test Statement X, comparing categories in 2005.
Managerial 2005: $\frac{399}{40,763} \times 100 \approx 0.979\%$. Technical 2005: $\frac{637}{60,133} \times 100 \approx 1.059\%$. Since 0.979% is less than 1.059%, Managerial's success rate is actually lower than Technical's in 2005, not higher, so Statement X is False.

Step 3: Test Statement Y, comparing years within Managerial.
Managerial 2004: $\frac{138}{15,389} \times 100 \approx 0.897\%$. Managerial 2005 (from Step 2): $\approx 0.979\%$. Since 0.979% is greater than 0.897%, the Managerial success rate did improve from 2004 to 2005, so Statement Y is True.

Step 4: Final Answer.
X is false and Y is true, so only Y is correct.

Only [Y] is True

Quick Tip: Success rate = (candidates short-listed) divided by (candidates who posted CVs); compute it separately for each year/category before comparing.

.

The table below gives data collected for an online job portal, InfiniteJobs.com, for the Technical and Managerial candidate categories in 2004 and 2005.

Year	Category	Registrations	CVs Posted	Shortlisted by Employers	Offered Jobs
2004	Technical	61,205	59,981	684	181
	Managerial	19,236	15,389	138	48
2005	Technical	63,298	60,133	637	115
	Managerial	45,292	40,763	399	84

Statement X: In 2004, the number of candidates offered jobs as a proportion of the number of CV's posted was higher for Technical than for Managerial candidates.

Statement Y: In 2004, among those short-listed by Employers, the Technical category had a higher success rate in securing jobs than the Managerial category.

(A) Only [X] is True

(B) Only [Y] is True

(C) Both [X] and [Y] are True

(D) Neither [X] nor [Y] is True

Correct Answer: (D) Neither [X] nor [Y] is True

Solution:

Step 1: Check Statement X.

Statement X compares offered jobs as a share of CV's posted, in 2004, between the two categories.

For Technical: $\frac{181}{59981} \times 100 \approx 0.30\%$.

For Managerial: $\frac{48}{15389} \times 100 \approx 0.31\%$.

Step 2: Decide Statement X.

The Managerial share, about 0.31%, is a shade higher than the Technical share, about 0.30%, so Technical is not higher here. Statement X is false.

Step 3: Check Statement Y.

Statement Y compares how well each category converts a shortlist into an actual job offer, in 2004.

For Technical: $\frac{181}{684} \times 100 \approx 26.46\%$.

For Managerial: $\frac{48}{138} \times 100 \approx 34.78\%$.

Step 4: Decide Statement Y.

Managerial candidates turned about 34.78% of their shortlists into offers, well above the Technical figure of about 26.46%.

So the claim that Technical had the higher success rate is also false.

Final Answer:

Managerial candidates beat Technical candidates on both the offer to CV ratio and the offer to shortlist ratio in 2004, so both statements are wrong.

Neither X nor Y is True

Quick Tip: Turn each statement into a ratio (offers over CV's, and offers over shortlisted) for both categories in 2004, then compare the two ratios directly instead of assuming which one should be bigger.

.

The following table gives cost data of select stock prices on 3rd Dec 2003 in two markets, BSE of India and NQE of Kya Kya island. Closing stock refers to the price at the close of trading hours and opening stock to the price at the beginning of the day. The currency of Kya Kya is # and the exchange rate is # = Rs 11.

Share	Market	Opening Price	Closing Price
SIFY	BSE (Rs)	232	247
INFY	NQE (#)	9.5	10.5
WIPRO	NQE (#)	5.5	6.5
TCS	NQE (#)	40.5	40

Which share and which market showed the highest % increase on 3rd Dec 2003?

(A) SIFY on BSE

(B) INFY on NQE

(C) WIPRO on NQE

(D) TCS on NQE

Correct Answer: (C) WIPRO on NQE

Solution:

Step 1: Understanding the Question:
We need the percent increase from opening to closing price for each of the four listed stock-and-market combinations, then pick the largest.

Step 2: Key Formula or Approach:
Percent increase is calculated within the same market and currency,

since a stock's own opening and closing prices are already in the same units.

$$\%\ \text{increase} = \frac{\text{Closing} - \text{Opening}}{\text{Opening}} \times 100$$

Step 3: Detailed Explanation.

SIFY on BSE: $\frac{247 - 232}{232} \times 100 = \frac{15}{232} \times 100 \approx 6.47\%$.

INFY on NQE: $\frac{10.5 - 9.5}{9.5} \times 100 = \frac{1}{9.5} \times 100 \approx 10.53\%$.

WIPRO on NQE: $\frac{6.5 - 5.5}{5.5} \times 100 = \frac{1}{5.5} \times 100 \approx 18.18\%$.

TCS on NQE: $\frac{40 - 40.5}{40.5} \times 100 \approx -1.23\%$, which is actually a fall, not a rise.

Step 4: Final Answer:

Comparing 6.47%, 10.53%, 18.18% and a negative change, WIPRO on NQE has the largest positive percentage increase.

$$\boxed{\text{WIPRO on NQE}}$$

Quick Tip: Work out (Closing minus Opening) divided by Opening for each of the four given combinations; a ratio of Closing to Opening greater than 1 signals a rise, and the biggest ratio wins.

.

Arbitrage means buying a share in one market and selling it simultaneously in another market. The table gives the opening price of four shares on 3rd Dec 2003 in both BSE of India (Rs) and NQE of Kya Kya island (#), where # = Rs 11.

Share	BSE Opening (Rs)	NQE Opening (#)
SIFY	232	21
INFY	105	9.5
WIPRO	60	5.5
TCS	450	40.5

If Mr. Ghosh Babu buys a share at the *opening* price on one exchange and sells it at the *opening* price on the other exchange, on which share does he make maximum % profit? (Exchange rate: # = Rs 11)

(A) SIFY

(B) INFY

(C) WIPRO

(D) TCS

Correct Answer: (D) TCS

Solution:

Step 1: Understanding the Question:
Arbitrage profit means buying where the price is lower and selling where the price is higher, both at the opening quotes, but the two markets use different currencies, so we first convert them to a common currency.

Step 2: Key Formula or Approach:

Convert every NQE price to rupees by multiplying by 11, since # 1 = Rs 11. Then, for each share, take the lower of the two rupee prices as the buy price and the higher as the sell price.

$$\%\ \text{profit} = \frac{\text{Sell} - \text{Buy}}{\text{Buy}} \times 100$$

Step 3: Detailed Explanation.

SIFY: NQE price in Rs $= 21 \times 11 = 231$, BSE price $= 232$. Buy on NQE at 231, sell on BSE at 232: profit $= \frac{232 - 231}{231} \times 100 \approx 0.43\%$.

INFY: NQE price $= 9.5 \times 11 = 104.5$, BSE price $= 105$. Profit $= \frac{105 - 104.5}{104.5} \times 100 \approx 0.48\%$.

WIPRO: NQE price $= 5.5 \times 11 = 60.5$, BSE price $= 60$. Here NQE is costlier, so buy on BSE at 60, sell on NQE at 60.5: profit $= \frac{60.5 - 60}{60} \times 100 \approx 0.83\%$.

TCS: NQE price $= 40.5 \times 11 = 445.5$, BSE price $= 450$. Buy on NQE at 445.5, sell on BSE at 450: profit $= \frac{450 - 445.5}{445.5} \times 100 \approx 1.01\%$.

Step 4: Final Answer:

Comparing 0.43%, 0.48%, 0.83% and 1.01%, TCS gives Mr. Ghosh Babu the maximum arbitrage profit.

$$\boxed{\text{TCS}}$$

Quick Tip: Convert every NQE opening price to rupees using the given rate, then for each share divide the price gap between the two markets by the lower (buying) price to get percentage profit.

.

Using the same 3rd December 2003 stock price data, SIFY's BSE opening price was Rs 232 and its BSE closing price was Rs 247.

In an M&A deal, SIFY is purchased by its parent company SATYAM, which purchases 15% of SIFY's equity shares. Total SIFY equity shares are 1 million. How much does Satyam pay in rupees for the stake if 50% of its purchases were on BSE's opening price and the balance on BSE's closing price?

(A) 36 million

(B) 3.5 million

(C) 363 million

(D) 217 million

Correct Answer: (A) 36 million

Solution:

Step 1: Understanding the Question:
Satyam buys 15% of SIFY's total shares, and this purchase is split evenly between two different price points on BSE. We need the total rupee amount paid.

Step 2: Key Formula or Approach:
First find the number of shares bought, split that number 50-50 across the two prices, then value each half separately and add.

Step 3: Detailed Explanation.
Total shares purchased $= 15\% \times 1{,}000{,}000 = 150{,}000$ shares.
Half of these, that is 75,000 shares, are bought at the BSE opening price of Rs 232:

$$75{,}000 \times 232 = 17{,}400{,}000 \text{ Rs}$$

The other half, another 75,000 shares, are bought at the BSE closing price of Rs 247:

$$75{,}000 \times 247 = 18{,}525{,}000 \text{ Rs}$$

Adding these two amounts gives the total payment.

Step 4: Final Answer:
Total payment $= 17{,}400{,}000 + 18{,}525{,}000 = 35{,}925{,}000$ Rs, which is approximately Rs 36 million.

$$\boxed{36 \text{ million}}$$

Quick Tip: Find the number of shares bought (15% of 1 million), split that into two equal halves, and value each half at its own BSE price before adding, or equivalently multiply the total shares by the average of the two prices.

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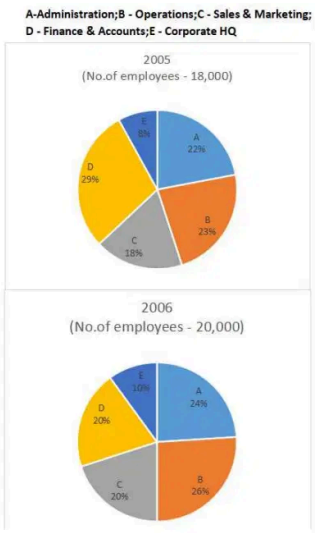
The pie-charts below give the percentage distribution of employees in different Departments in XYZ Company Ltd. during the years 2005 and 2006. A - Administration; B - Operations; C - Sales & Marketing; D - Finance & Accounts; E - Corporate HQ.



2005 (total employees 18,000): A 22%, B 23%, C 18%, D 29%, E 8%.

2006 (total employees 20,000): A 24%, B 26%, C 20%, D 20%, E 10%.

If the average *monthly* salary of employees in Administration was Rs 12,000 in 2005, what was the approximate total salary expense of Administration in 2005?

(A) Rs. 57 lakhs

(B) Rs. 4.7 crores

(C) Rs. 66 crores

(D) Rs. 66 lakhs

Correct Answer: (B) Rs. 4.7 crores

Solution:

Step 1: Understanding the Question:

We first need the actual headcount of the Administration department

in 2005 from the pie chart, then multiply by the given monthly salary to get the total monthly salary bill.

Step 2: Key Formula or Approach:
Headcount of a department = its pie-chart percentage × total employees for that year. Then, total salary expense = headcount × average salary.

Step 3: Detailed Explanation.
Total employees in 2005 = 18,000. Administration's share = 22%.

$$\text{Administration headcount} = 0.22 \times 18{,}000 = 3{,}960 \text{ employees}$$

Each of these employees earns Rs 12,000 a month on average, so the monthly wage bill is

$$3{,}960 \times 12{,}000 = 47{,}520{,}000 \text{ Rs}$$

Step 4: Final Answer:
Rs 47,520,000 works out to about Rs 4.75 crore, since 1 crore = 1,00,00,000.

$$\boxed{\text{Rs. 4.7 crores}}$$

Quick Tip: First convert Administration's 22% share of the 2005 workforce into an actual employee count, then multiply that count by the Rs 12,000 monthly salary to get the total monthly wage bill.

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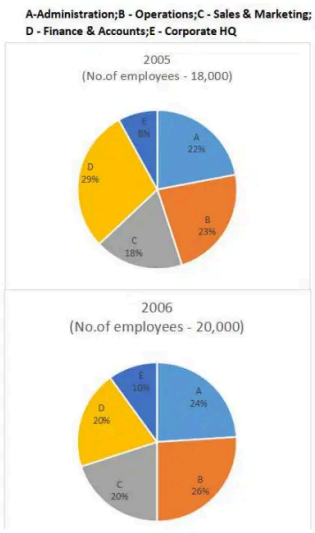
The pie-charts below give the percentage distribution of employees in different Departments in XYZ Company Ltd. during the years 2005 and 2006. A - Administration; B - Operations; C - Sales & Marketing; D - Finance & Accounts; E - Corporate HQ.



2005 (total employees 18,000): A 22%, B 23%, C 18%, D 29%, E 8%.

2006 (total employees 20,000): A 24%, B 26%, C 20%, D 20%, E 10%.

What is the percentage increase in the number of employees in Sales & Marketing from 2005 to 2006?

(A) 2%

(B) 2.34%

(C) 23.45%

(D) None of these

Correct Answer: (C) 23.45%

Solution:

Step 1: Understanding the Question:

Sales & Marketing (department C) has both a different percentage share and a different company total in the two years, so we must

convert to actual headcounts before comparing.

Step 2: Key Formula or Approach:

Headcount = percentage share × total employees for that year, then apply the usual percentage-increase formula on the two headcounts.

Step 3: Detailed Explanation.

2005: Sales & Marketing = 18% × 18,000 = 3,240 employees.

2006: Sales & Marketing = 20% × 20,000 = 4,000 employees.

Increase in headcount = 4,000 − 3,240 = 760 employees.

$$\% \text{ increase} = \frac{760}{3240} \times 100 \approx 23.46\%$$

Step 4: Final Answer:

The percentage increase works out to about 23.45%, using 2005's headcount of 3,240 as the base.

$$\boxed{23.45\%}$$

Quick Tip: Convert the 18% (2005) and 20% (2006) shares into actual employee counts using each year's own total, then apply the standard percentage-increase formula on those two counts.

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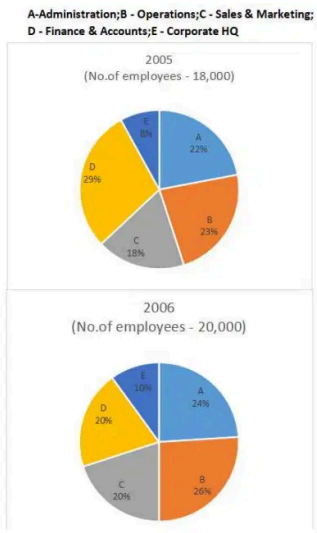
The pie-charts below give the percentage distribution of employees in different Departments in XYZ Company Ltd. during the years 2005 and 2006. A - Administration; B - Operations; C - Sales & Marketing; D - Finance & Accounts; E - Corporate HQ.



2005 (total employees 18,000): A 22%, B 23%, C 18%, D 29%, E 8%.

2006 (total employees 20,000): A 24%, B 26%, C 20%, D 20%, E 10%.

In which department is the variation in strength (absolute change) the maximum in 2006 compared to 2005?

(A) A (Administration)

(B) B (Operations)

(C) D (Finance & Accounts)

(D) E (Corporate HQ)

Correct Answer: (C) D (Finance & Accounts)

Solution:

Step 1: Understanding the Question:

"Variation in strength" here means the absolute change in headcount, not the percentage-point change, so every department's actual

employee count must be worked out for both years.

Step 2: Key Formula or Approach:

Headcount = percentage share × total employees for that year; absolute change = |2006 headcount − 2005 headcount|.

Step 3: Detailed Explanation.

A (Administration): 22% × 18,000 = 3,960 → 24% × 20,000 = 4,800, change = 840.

B (Operations): 23% × 18,000 = 4,140 → 26% × 20,000 = 5,200, change = 1,060.

C (Sales & Marketing, not an option but shown for completeness): 18% × 18,000 = 3,240 → 20% × 20,000 = 4,000, change = 760.

D (Finance & Accounts): 29% × 18,000 = 5,220 → 20% × 20,000 = 4,000, change = −1,220, so |−1220| = 1,220.

E (Corporate HQ): 8% × 18,000 = 1,440 → 10% × 20,000 = 2,000, change = 560.

Step 4: Final Answer:

Comparing 840, 1,060, 1,220 and 560, department D has the largest absolute change at 1,220 employees, even though its percentage share actually fell.

D (Finance & Accounts)

Quick Tip: Convert every department's percentage share into an actual headcount for 2005 and 2006 using that year's own total, then take the absolute difference for each department and compare, remembering a department can drop even while the company grows.

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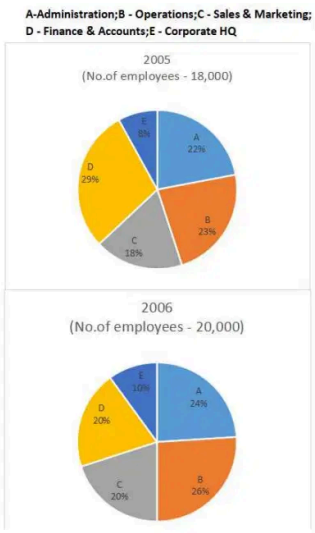
The pie-charts below give the percentage distribution of employees in different Departments in XYZ Company Ltd. during the years 2005 and 2006. A - Administration; B - Operations; C - Sales & Marketing; D - Finance & Accounts; E - Corporate HQ.



2005 (total employees 18,000): A 22%, B 23%, C 18%, D 29%, E 8%.

2006 (total employees 20,000): A 24%, B 26%, C 20%, D 20%, E 10%.

If 300 employees left Operations at the end of 2005, how many joined in 2006?

(A) 480

(B) 960

(C) 1360

(D) None of these

Correct Answer: (C) 1360

Solution:

Step 1: Understanding the Question:

We know Operations' headcount at the start and end of the period, and that 300 people left along the way, so we need to find how many

new people were hired to account for both the loss and the net growth.

Step 2: Key Formula or Approach:
First find the Operations headcount in 2005 and 2006 from the pie charts, then use:

$$\text{New joiners} = (\text{2006 headcount} - \text{2005 headcount}) + \text{employees who left}$$

Step 3: Detailed Explanation.
Operations in 2005 $= 23\% \times 18{,}000 = 4{,}140$ employees.
Operations in 2006 $= 26\% \times 20{,}000 = 5{,}200$ employees.
Net increase over the year $= 5{,}200 - 4{,}140 = 1{,}060$ employees.
Since 300 employees already left at the end of 2005, the department needed to make up for that loss on top of the net growth, so

$$\text{New joiners} = 1{,}060 + 300 = 1{,}360$$

Step 4: Final Answer:
1,360 employees joined Operations in 2006 to cover both the 300 who left and the net growth of 1,060.

$$\boxed{1{,}360}$$

Quick Tip: Work out Operations' headcount for 2005 and 2006 from the pie charts, subtract to get the net change, then add back the 300 who left since new joiners must cover both the net growth and the departures.

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You have three chests in front of you. The first chest is labeled "GOLD", the second is labeled "SILVER" and the third is labeled "GOLD OR SILVER". You have been told that all the labels are on the wrong chests and that one chest contains gold coins, one contains silver coins and one contains bronze coins. How many chests do you need to open to deduce which label goes on which chest?

(A) 0

(B) 1

(C) 2

(D) Cannot deduce

Correct Answer: (A) 0

Solution:

Step 1: Use the label that rules out the most.
Every label in this puzzle is wrong, so no chest actually holds what its label says. Start with chest 3, labeled "GOLD OR SILVER". Since this label is wrong, chest 3 cannot hold gold and it cannot hold silver either.
With only three metals in play (gold, silver, bronze), a chest that is neither gold nor silver must be bronze. So chest 3 = bronze, and we have not opened a single chest yet.

Step 2: Use the "SILVER" label on chest 2.
Chest 2 is labeled "SILVER", and that label is wrong too, so chest 2 does not hold silver.
Bronze is already accounted for by chest 3, so the only metals left for chest 2 are gold and silver. Since silver is ruled out, chest 2 must hold

gold.

Step 3: Use the "GOLD" label on chest 1.
Chest 1 is labeled "GOLD", which is also wrong, so chest 1 does not hold gold.
Gold is already placed in chest 2 and bronze is already placed in chest 3, so the only metal left for chest 1 is silver. Chest 1 = silver.

Step 4: Count how many chests were opened.
Every chest's true content was pinned down purely by the fact that its label is wrong, working through the three labels one at a time. No chest needed to be physically opened to reach this conclusion.

Final Answer:
The full assignment (chest 1 = silver, chest 2 = gold, chest 3 = bronze) follows from logic alone.

0

Quick Tip: Start with the chest labeled "GOLD OR SILVER". Since every label is wrong, this chest cannot hold gold or silver, so its true content is forced without opening anything.

•

How many minutes before 12 noon is it when it is 27 minutes past 10 am?

(A) 30

(B) 93

(C) 49

(D) 94

Correct Answer: (B) 93

Solution:

Step 1: Write the given time in the 12 hour clock.

27 minutes past 10 am is 10:27 am.

Step 2: Split the gap up to noon into two easy pieces.

From 10:27 am to 11:27 am is exactly one hour, so that piece is 60 minutes.

From 11:27 am to 12:00 noon is the remaining piece: $60 - 27 = 33$ minutes.

Step 3: Add the two pieces together.

Total minutes before noon $= 60 + 33 = 93$ minutes.

Final Answer:

It is 93 minutes before 12 noon.

$$\boxed{93}$$

Quick Tip: Find the total minutes from 10:27 am to 12:00 noon by adding the minutes to 11:27 am and then the minutes from 11:27 am to noon.

.

Read the following passage and answer the questions based on it.

An employee has been assigned the task of allotting offices to six of the staff members. The offices are numbered 1 to 6. The offices are arranged in a row and they are separated from each other by six foot high dividers. Hence voices, sounds and cigarette smoke flow easily from one office to another.

Miss Ruby needs to use the telephone quite often throughout the day. Mr. Minhas and Mr. Brar need adjacent offices as they need to consult each other often while working. Miss Harsha is a senior employee and has to be allotted office number 5, having the biggest window. Mr. Dongre requires silence in the offices next to his. Mr. Tanjore, Mr. Minhas and Mr. Dongre are all smokers. Miss Harsha finds tobacco smoke allergic and consequently the offices next to hers are to be occupied by non-smokers. Unless specifically stated, all the employees maintain an atmosphere of silence during office hours.

The ideal candidate to occupy the office furthest from Mr. Brar would be:

(A) Miss Harsha

(B) Mr. Minhas

(C) Mr. Tanjore

(D) Mr. Dongre

Correct Answer: (D) Mr. Dongre

Solution:

Step 1: Place the two people whose offices are fixed by direct rules.
Miss Harsha is a senior employee and must sit in office 5, since it has the biggest window.
Miss Harsha is allergic to tobacco smoke, so the offices next to hers,

which are office 4 and office 6, must both be occupied by non-smokers.

Step 2: Work out who the non-smokers are.
The passage tells us Mr. Tanjore, Mr. Minhas and Mr. Dongre are smokers. That leaves Miss Ruby, Mr. Brar and Miss Harsha as the three non-smokers.
Since Miss Harsha already sits in office 5, the two non-smokers left to fill offices 4 and 6 must be Miss Ruby and Mr. Brar, in some order.

Step 3: Use the Minhas-Brar adjacency rule to fix the order.
Mr. Minhas and Mr. Brar must sit next to each other. If Mr. Brar were in office 6, his only possible neighbour would be office 5 or a non-existent office 7, and office 5 already belongs to Miss Harsha, so Mr. Minhas could never sit next to him. This is impossible, so Mr. Brar must be in office 4, which leaves Miss Ruby in office 6.
Since Mr. Minhas has to be next to office 4, and office 5 is taken, Mr. Minhas must be in office 3.

Step 4: Place the remaining two smokers.
Only offices 1 and 2 are left, for Mr. Dongre and Mr. Tanjore. Mr. Dongre needs silence in the office right next to his own, so he benefits most from sitting as far as possible from the office 3 to 4 zone, where Mr. Minhas and Mr. Brar consult each other often and are more likely to talk. Office 1 sits at the very end of the row with only one neighbour, so it is the natural, quieter spot for Mr. Dongre. That places Mr. Tanjore in office 2.
The full layout is: 1 = Dongre, 2 = Tanjore, 3 = Minhas, 4 = Brar, 5 = Harsha, 6 = Ruby.

Step 5: Find the office furthest from Mr. Brar.

Mr. Brar sits in office 4. The distance to office 1 is $|4 - 1| = 3$, while the distance to office 6 is only $|4 - 6| = 2$. So office 1, held by Mr. Dongre, is the office furthest from Mr. Brar.

Final Answer:

The person who ideally belongs in the office farthest from Mr. Brar is Mr. Dongre, since he is the one who needs quiet and benefits most from being away from the Minhas-Brar consulting pair.

$$\boxed{\text{Mr. Dongre}}$$

Quick Tip: First fix Miss Harsha in office 5, then use the smoke-allergy rule to force the non-smokers into offices 4 and 6, and the Minhas-Brar adjacency rule to place the rest.

.

Read the following passage and answer the questions based on it.

An employee has been assigned the task of allotting offices to six of the staff members. The offices are numbered 1 to 6. The offices are arranged in a row and they are separated from each other by six foot high dividers. Hence voices, sounds and cigarette smoke flow easily from one office to another.

Miss Ruby needs to use the telephone quite often throughout the day. Mr. Minhas and Mr. Brar need adjacent offices as they need to consult each other often while working. Miss Harsha is a senior employee and has to be allotted office number 5, having the biggest window. Mr. Dongre requires silence in the offices next to his. Mr. Tanjore, Mr. Minhas and Mr. Dongre are all smokers. Miss Harsha finds tobacco smoke allergic and consequently the offices next to hers are to be occupied by non-smokers. Unless specifically stated, all the employees maintain an atmosphere of silence during office hours.

The three employees who are smokers should be seated in the offices:

(A) 1, 2 and 4

(B) 2, 3 and 6

(C) 1, 2 and 6

(D) 1, 2 and 3

Correct Answer: (D) 1, 2 and 3

Solution:

Step 1: Recall the fixed points of the seating.

Miss Harsha sits in office 5, since she is senior and gets the biggest window. Because she is allergic to smoke, offices 4 and 6 must hold non-smokers, and the only non-smokers left after placing Harsha are

Miss Ruby and Mr. Brar.

Step 2: Fix Brar and Ruby using the Minhas-Brar rule.
Mr. Minhas must sit right next to Mr. Brar. If Brar sat in office 6, Minhas would need office 5 or office 7, and neither is available, so Brar must be in office 4 instead, which puts Ruby in office 6. Minhas then takes office 3, the only free slot next to Brar.

Step 3: Place the last two people.
Offices 1 and 2 remain for Mr. Dongre and Mr. Tanjore. Dongre needs quiet next to him, so he is placed in the end office 1, away from the Minhas-Brar pair, leaving Tanjore in office 2.
Full layout: 1 = Dongre, 2 = Tanjore, 3 = Minhas, 4 = Brar, 5 = Harsha, 6 = Ruby.

Step 4: Identify the smokers by name, then read off their offices.
The passage states the smokers are Mr. Tanjore, Mr. Minhas and Mr. Dongre. From the layout above, Dongre is in office 1, Tanjore is in office 2, and Minhas is in office 3.

Final Answer:
The three smokers occupy offices 1, 2 and 3.

$$\boxed{1, 2, 3}$$

Quick Tip: Use the same seating worked out for the office allotment passage: Dongre, Tanjore and Minhas are the smokers, so note which office numbers they land in.

.

Read the following passage and answer the questions based on it.

An employee has been assigned the task of allotting offices to six of the staff members. The offices are numbered 1 to 6. The offices are arranged in a row and they are separated from each other by six foot high dividers. Hence voices, sounds and cigarette smoke flow easily from one office to another.

Miss Ruby needs to use the telephone quite often throughout the day. Mr. Minhas and Mr. Brar need adjacent offices as they need to consult each other often while working. Miss Harsha is a senior employee and has to be allotted office number 5, having the biggest window. Mr. Dongre requires silence in the offices next to his. Mr. Tanjore, Mr. Minhas and Mr. Dongre are all smokers. Miss Harsha finds tobacco smoke allergic and consequently the offices next to hers are to be occupied by non-smokers. Unless specifically stated, all the employees maintain an atmosphere of silence during office hours.

In the event of what occurrence, within a month of the assignment of the offices, would a request for a change in office be put forth by one or more employees?

(A) Mr. Dongre quitting smoking

(B) The installation of a noisy teletype machine by Miss Harsha in her office

(C) Miss Ruby needs silence in the office(s) next to her own

(D) Mr. Tanjore taking over the duties formerly taken care of by Miss Ruby

Correct Answer: (D) Mr. Tanjore taking over the duties formerly taken care of by Miss Ruby

Solution:

Step 1: Fix the seating first.
Working through the rules as before gives the layout: 1 = Dongre, 2 = Tanjore, 3 = Minhas, 4 = Brar, 5 = Harsha, 6 = Ruby.
Office 1 sits at the end of the row, so it has only one neighbour: office 2. This means Mr. Dongre's rule, that the office next to his must stay silent, applies specifically to office 2, which is Mr. Tanjore's office.

Step 2: Check option A, Dongre quitting smoking.
Dongre's own smoking habit was never the reason he was placed anywhere, and no rule in the passage depends on whether Dongre himself smokes. Quitting changes nothing for anyone else, so this does not force a change.

Step 3: Check option B, a noisy teletype machine in Harsha's office.
Harsha's neighbours are office 4 (Brar) and office 6 (Ruby). Neither of them has any rule requiring silence next to them, and Ruby is already used to noise from her own frequent phone calls. So new noise from Harsha's office does not break any stated rule.

Step 4: Check option C, Ruby needing silence next to her.
Ruby sits in office 6, whose only neighbour is office 5, Harsha's office. Harsha follows the default rule of silence during office hours already, since nothing states otherwise for her. So this new requirement is already satisfied and forces no change.

Step 5: Check option D, Tanjore taking over Ruby's phone duties.
Tanjore sits in office 2, which is exactly the office Dongre's silence rule protects. If Tanjore starts using the telephone often, like Ruby used to, office 2 stops being silent. That directly breaks Dongre's

requirement, so either Dongre or Tanjore would have good reason to ask for a different office.

Final Answer:
Only the change in option D creates a real conflict with an existing rule, so it is the one that would trigger a request for a change in office.

Mr. Tanjore taking over Miss Ruby's duties

Quick Tip: Work out which single office is protected by Mr. Dongre's silence rule, then check which of the four scenarios breaks silence in that exact office.

.

Shankar and Jwala are both members of a Youth club, though they are not speaking to each other and refuse to work with each other. Chaya, the club president, is appointing members to the fundraising committee, but she has resolved that she will not appoint anyone without his or her explicit consent. Shankar says, "I will not consent unless I know whether Jwala is to be a member." Jwala says, "I will not consent unless I know whether Shankar is to be a member." If all three stick to these resolutions, then:

(A) Neither of them can be appointed to the committee.

(B) They must either both be appointed or both left out.

(C) The committee may have one of them, both of them, or neither.

(D) Either one can be appointed, but not both.

Correct Answer: (D) Either one can be appointed, but not both.

Solution:

Step 1: Understand what each person's condition means.
Shankar will only give his consent once he knows whether Jwala is going to be on the committee. Jwala will only give her consent once she knows whether Shankar is going to be on the committee. Chaya will not appoint either of them without that consent.

Step 2: Test the case where both are appointed.
For Shankar to consent, he needs to already know Jwala's status, meaning Jwala's spot must be decided before Shankar agrees. But Jwala's spot depends on her own consent, which in turn needs her to already know Shankar's status. Each one's decision is waiting on the other one's decision first, with no starting point. This loop can never resolve, so both being appointed together is not possible.

Step 3: Test the case where only Shankar is appointed.
If Jwala is left out, then Shankar can be told plainly that Jwala is not going to be a member. Shankar now knows Jwala's status, so his condition is satisfied and he can give consent. Nothing stops Jwala's status from being settled first in this case, since she is simply not chosen.

Step 4: Test the case where only Jwala is appointed.
By the same reasoning, if Shankar is left out, Jwala can be told he is not a member, her condition is met, and she can consent.

Step 5: Test the case where neither is appointed.
This case is also consistent on its own, but the question is asking what must happen given the resolutions, not just what is possible. The two working, non-circular cases are exactly the ones where one of them is

in and the other is out.

Final Answer:
The circular dependency rules out having both Shankar and Jwala on the committee together, while placing just one of them works fine either way. So either one can be appointed, but never both at once.

Either one can be appointed, but not both.

Quick Tip: Check whether both being appointed together creates a circular problem where each person's consent depends on the other's status being decided first, then check what happens if only one of them is appointed.

.

A bank customer had Rs. 100 in his account. He then made 6 withdrawals, totaling Rs. 100. He kept a record of these withdrawals, and the balance remaining in the account, as follows:

Withdrawals	Balance left
Rs. 50	Rs. 50
Rs. 25	Rs. 25
Rs. 10	Rs. 15
Rs. 8	Rs. 7
Rs. 5	Rs. 2
Rs. 2	Rs. 0
Rs. 100	Rs. 99

So, why are the totals not exactly right?

(A) There is a mistake in the total of withdrawals.

(B) There is a mistake in the total of the balance.

(C) The two totals need not be equal.

(D) The bank has cheated the customer.

Correct Answer: (C) The two totals need not be equal.

Solution:

Step 1: Check that the withdrawals column is correct.
Add up the withdrawals: $50 + 25 + 10 + 8 + 5 + 2 = 100$. This matches the Rs. 100 the customer started with, so nothing is wrong here.

Step 2: Understand what the "balance left" column actually represents.
Each entry in that column is simply Rs. 100 minus the withdrawals made up to that point. It is a running leftover amount, not a separate quantity of money that was ever handed out.

Step 3: See why adding that column is meaningless.
Adding six different snapshots of "money still left in the account at various points" has no natural reason to produce Rs. 100, or any particular number at all. The balance figures overlap with each other in what they represent, since each balance already includes the effect of every withdrawal before it. Summing them is like adding up six photographs of a shrinking pile of money, not counting the money itself.

Step 4: Confirm with the actual numbers.
$50 + 25 + 15 + 7 + 2 + 0 = 99$. This lands close to 100 purely by coincidence of the numbers chosen here, not because it was ever

supposed to equal the withdrawal total.

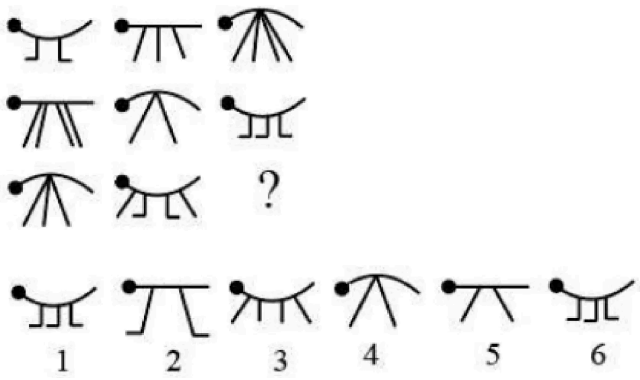
Final Answer:
The withdrawal total and the balance total measure two different things, so there was never a reason for them to match. Nothing is actually wrong with either column.

The two totals need not be equal.

Quick Tip: Check whether the "balance left" column is even supposed to add up to anything meaningful in the first place, since each balance already includes every earlier withdrawal.

.

Which image from the bottom row should replace the question mark?



(A) 3

(B) 6

(C) 2

(D) 5

Correct Answer: (D) 5

Solution:

Step 1: Split each creature into two separate features.
Every figure has a dot for a head, a body line running from the head to a curved tail, and a set of legs hanging from that body line. Two things vary from figure to figure: the shape of the body line, and the style of the legs.

Step 2: Identify the three body line shapes used.
Looking across the grid, the body line is either a flat straight line, an arch that domes upward, or a shallow dip that curves downward before rising again. Each row uses all three shapes exactly once, and so does each column.

Step 3: Identify the three leg styles used.
The legs are either two bent, right-angled legs that end in a small foot, a plain tripod of three straight legs spread evenly, or a wide fan of several straight legs bunched close together. Just like the body shape, each row and each column uses all three leg styles exactly once.

Step 4: Read off what row 3 and column 3 already contain.
Row 3 so far has a domed body with a wide fan of legs, then a dipped body with bent legs. The body shape missing from row 3 is the flat line, and the leg style missing from row 3 is the plain tripod.
Column 3 so far has a domed body with a wide fan of legs, then a dipped body with bent legs. The same two features, flat body and tripod legs, are the ones missing from column 3 as well.

Step 5: Match this description to the answer figures.
Image 5 shows a flat, straight body line with three straight legs spread out evenly, exactly the flat-body-plus-tripod-legs combination that

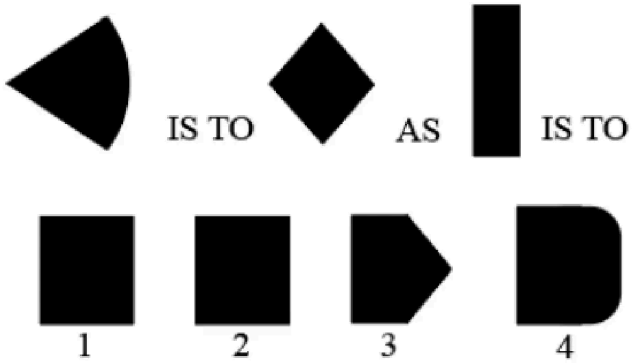
both the row and the column are missing.

Final Answer:
The missing figure has a flat body and three straight tripod legs, which is image 5.

5

Quick Tip: Look separately at the shape of the back/body line (flat, domed, or dipped) and the style of the legs (bent feet, a plain tripod, or a wide fan of straight rays). Each of the three types appears exactly once in every row and every column.

. A wedge shape is to a diamond shape as a vertical bar is to which of the given figures?



(A) 1

(B) 2

(C) 3

(D) 4

Correct Answer: (C) 3

Solution:

Step 1: Understand the given pair.
The first figure is a wedge shape. It has a single sharp point on the left and a curved edge on the right that bulges outward.

Step 2: See what changes when the wedge becomes a diamond.
The diamond keeps the sharp point on the left, but the curved edge on the right has been replaced by a matching sharp point. The top and bottom edges also pull in to meet at points, so the whole figure becomes a four pointed shape with no curve left in it at all.
The rule at work here is simple: any rounded or flat edge on the far side of the figure gets converted into a sharp point, while the near side, which is already pointed, stays as it is.

Step 3: Apply the same rule to the vertical bar.
The bar is a plain rectangle. Its left edge is flat and its right edge is also flat, with no point and no curve anywhere.
Following the rule from Step 2, the left edge of the bar should stay flat, since it plays the same role as the already pointed left side of the wedge, while the flat right edge must turn into a sharp point.

Step 4: Match this to the options.
Option 1 and option 2 are plain squares, both unchanged rectangles with no point added, so neither matches the transformation.
Option 4 shows the right edge turning into a curve, a rounded D shape. That is the opposite of what happened in the first pair, where a curve turned into a point, not the other way round.
Option 3 keeps the left edge flat and turns the right edge into a single sharp point, exactly matching the wedge to diamond change.

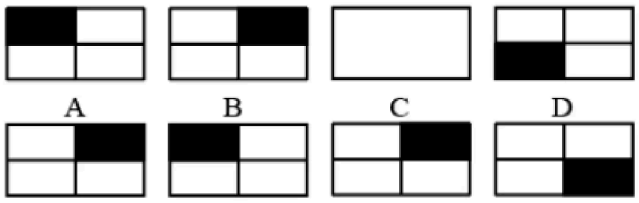
Final Answer:

The bar is to option 3, the pentagon shaped figure with a pointed right end.

Option 3

Quick Tip: Look at what happens to the curved edge of the wedge when it becomes a diamond, it turns into a sharp point. Apply the same change to the flat right edge of the bar.

. Which pattern from the bottom line (A, B, C, D or E) is missing from the top line?



(A) A

(B) B

(C) D

(D) E

Correct Answer: (C) D

Solution:

Step 1: List the patterns in the top line.

Each box in the figure is split into two equal halves on top and two equal halves on the bottom, like a 2 by 2 grid, with exactly one of the four small squares shaded black.

Reading the top line left to right: box 1 has its top left square shaded, box 2 has its top right square shaded, box 3 has no square shaded at all, and box 4 has its bottom left square shaded.

Step 2: List the patterns in the bottom line.
Box A has its top right square shaded.
Box B has its top left square shaded.
Box C also has its top right square shaded, the same pattern as box A.
Box D has its bottom right square shaded.

Step 3: Match each bottom pattern to the top line.
Box A, top right shaded, matches top line box 2.
Box B, top left shaded, matches top line box 1.
Box C, top right shaded, repeats box A and also matches top line box 2.
Box D, bottom right shaded, does not match any of the four top line boxes, since the top line only shows top left, top right, blank and bottom left shading, never bottom right.

Final Answer:
The pattern that never appears in the top line is box D, with its bottom right square shaded.

Pattern D

Quick Tip: Note which quadrant, top left, top right, bottom left or bottom right, is shaded in each top line box, then check which bottom line box uses a quadrant never seen in the top line.

. During their school Silver Jubilee Reunion, four alumni were discussing their starting annual salaries back in 1981. The salaries in question were Rupees 40, 50, 60 and 70 thousand per year. Of course, the present MD of a private company earned the most. Arvind earned more than Biswajeet, and the doctor earned more than Dhruv the engineer. Chinmay could not remember what he started on. Biswajeet the lawyer did not start on Rs. 50,000, nor did Dhruv.

What is Chinmay's current profession?

(A) MD

(B) Lawyer

(C) Doctor

(D) Engineer

Correct Answer: (C) Doctor

Solution:

Step 1: Note down the direct clues.
Four people, Arvind, Biswajeet, Chinmay and Dhruv, each hold one of four professions, MD, Lawyer, Doctor and Engineer, and each started on one of four salaries, Rs 40,000, Rs 50,000, Rs 60,000 and Rs 70,000.
Two professions are given directly: Biswajeet is the lawyer, and Dhruv is the engineer. That leaves MD and Doctor to be shared between Arvind and Chinmay.

Step 2: Use the did not start on Rs 50,000 clues.
We are told the MD earned the most, so the MD's salary is Rs 70,000, the top value.
We are also told Biswajeet, the lawyer, did not start on Rs 50,000,

and Dhruv, the engineer, did not start on Rs 50,000 either.
Since somebody among the four must have started on Rs 50,000, and it cannot be Biswajeet or Dhruv, and it cannot be the MD whose salary is fixed at Rs 70,000, the Rs 50,000 salary must belong to whichever of Arvind or Chinmay is the Doctor, not the MD.

Step 3: Use Arvind earned more than Biswajeet to fix who is MD.
The three remaining salaries, Rs 40,000, Rs 50,000 and Rs 60,000, go to Biswajeet, Dhruv and the Doctor, with the Doctor taking Rs 50,000 as just shown.
We also know the Doctor earned more than Dhruv, so Dhruv's salary must be less than Rs 50,000, which forces Dhruv to Rs 40,000, leaving Biswajeet with Rs 60,000.
Now check Arvind earned more than Biswajeet, who has Rs 60,000. If Arvind were the Doctor, Arvind would earn only Rs 50,000, which is less than Biswajeet's Rs 60,000, breaking this clue. So Arvind cannot be the Doctor, which means Arvind is the MD on Rs 70,000, and Chinmay is the Doctor on Rs 50,000.

Step 4: Check every clue against the full solution.
Arvind, MD, Rs 70,000. Biswajeet, Lawyer, Rs 60,000. Chinmay, Doctor, Rs 50,000. Dhruv, Engineer, Rs 40,000.
Arvind, 70, is more than Biswajeet, 60: holds. Doctor Chinmay, 50, is more than Engineer Dhruv, 40: holds. Biswajeet and Dhruv both avoid Rs 50,000: holds. The MD, Arvind, has the highest salary: holds. Every clue is satisfied, and this is the only arrangement that works.

Final Answer:
Chinmay's profession is Doctor.

Doctor

Quick Tip: Biswajeet is the lawyer and Dhruv is the engineer, so MD and Doctor belong to Arvind and Chinmay. Use the no one took Rs 50,000 except the Doctor clue to work out who earns what.

. During their school Silver Jubilee Reunion, four alumni were discussing their starting annual salaries back in 1981. The salaries in question were Rupees 40, 50, 60 and 70 thousand per year. Of course, the present MD of a private company earned the most. Arvind earned more than Biswajeet, and the doctor earned more than Dhruv the engineer. Chinmay could not remember what he started on. Biswajeet the lawyer did not start on Rs. 50,000, nor did Dhruv.

What was the Lawyer's starting salary?

(A) Rs. 40,000

(B) Rs. 50,000

(C) Rs. 60,000

(D) Rs. 70,000

Correct Answer: (C) Rs. 60,000

Solution:

Step 1: Fix the two professions given directly.

Biswajeet is named as the lawyer, and Dhruv is named as the engineer. This leaves MD and Doctor to be shared between Arvind and Chinmay.

Step 2: Work out which salary the Doctor started on.
The MD earned the most, so the MD's salary is Rs 70,000, the highest of the four figures Rs 40,000, Rs 50,000, Rs 60,000 and Rs 70,000.
Neither Biswajeet nor Dhruv started on Rs 50,000. Since the MD already has Rs 70,000, the only person left who could have started on Rs 50,000 is the Doctor. So the Doctor's starting salary is Rs 50,000.

Step 3: Work out Dhruv's and Biswajeet's salaries.
The two salaries left over, Rs 40,000 and Rs 60,000, must go to Biswajeet, the lawyer, and Dhruv, the engineer.
Since the Doctor, on Rs 50,000, earned more than Dhruv the engineer, Dhruv's salary has to be below Rs 50,000, so Dhruv started on Rs 40,000. That leaves Rs 60,000 for Biswajeet, the lawyer.

Step 4: Confirm the last clue is not broken.
We still need Arvind earned more than Biswajeet. Biswajeet's salary is Rs 60,000, so Arvind must have started above Rs 60,000, meaning Arvind is the MD on Rs 70,000, and Chinmay is the Doctor on Rs 50,000. This matches everything already worked out, so the salary table is fully confirmed.

Final Answer:
The lawyer, Biswajeet, started on Rs 60,000.

$$\boxed{Rs.\ 60{,}000}$$

Quick Tip: Work out the Doctor's salary first from the not Rs 50,000 clues, then use Doctor earned more than Dhruv and Arvind earned more than Biswajeet to place the rest.

. During their school Silver Jubilee Reunion, four alumni were discussing their starting annual salaries back in 1981. The salaries in question were Rupees 40, 50, 60 and 70 thousand per year. Of course, the present MD of a private company earned the most. Arvind earned more than Biswajeet, and the doctor earned more than Dhruv the engineer. Chinmay could not remember what he started on. Biswajeet the lawyer did not start on Rs. 50,000, nor did Dhruv.

Who received the highest starting salary?

(A) Arvind

(B) Biswajeet

(C) Chinmay

(D) Dhruv

Correct Answer: (A) Arvind

Solution:

Step 1: Identify who could possibly be the MD.
The highest of the four salaries, Rs 40,000, Rs 50,000, Rs 60,000 and Rs 70,000, is Rs 70,000, and this belongs to whoever is the MD, since the MD earned the most.
Biswajeet is the lawyer and Dhruv is the engineer, so the MD must be either Arvind or Chinmay.

Step 2: Work out the other three salaries first.
Biswajeet and Dhruv both avoided Rs 50,000, so Rs 50,000 must belong to the Doctor, whichever of Arvind or Chinmay is not the MD.
Since the Doctor earned more than Dhruv, Dhruv's salary is below Rs 50,000, fixing Dhruv at Rs 40,000 and leaving Biswajeet with Rs 60,000.

Step 3: Decide between Arvind and Chinmay for the MD role.
The clue Arvind earned more than Biswajeet means Arvind's salary must exceed Rs 60,000.
If Arvind were the Doctor, he would earn only Rs 50,000, which is less than Biswajeet's Rs 60,000, so that cannot be right. Arvind must instead be the MD, earning Rs 70,000, which is indeed more than Rs 60,000. Chinmay then takes the Doctor's role and salary of Rs 50,000.

Step 4: Compare all four final salaries.
Arvind, Rs 70,000. Biswajeet, Rs 60,000. Chinmay, Rs 50,000. Dhruv, Rs 40,000. The largest of these four figures is Rs 70,000, held by Arvind.

Final Answer:
Arvind received the highest starting salary.

Arvind

Quick Tip: The MD earned the most. Work out whether Arvind or Chinmay is the MD using the Arvind earned more than Biswajeet clue.

. A man has a job which requires him to work 8 straight days and rest on the ninth day. If he started work on a Monday, the 12th time he rests will be on what day of the week?

(A) Sunday

(B) Wednesday

(C) Tuesday

(D) Friday

Correct Answer: (B) Wednesday

Solution:

Step 1: Set up the work rest cycle.

The man works 8 days in a row and then rests on the 9th day, so the full cycle length is 9 days, and every rest day falls on a day number that is a multiple of 9, that is day 9, day 18, day 27, and so on.

He starts work on day 1, which is a Monday.

Step 2: Find the day number of his 12th rest.

The kth rest happens on day number 9k. For the 12th rest,

$$9 \times 12 = 108$$

So the 12th rest falls on day number 108, counting day 1 as the first Monday.

Step 3: Convert day 108 into a weekday.

Since day 1 is a Monday, day n falls on the same weekday as n minus 1 days after Monday. Because the week repeats every 7 days, only the remainder of n minus 1 divided by 7 matters.

$$108 - 1 = 107$$

$$107 = 15 \times 7 + 2$$

So the remainder is 2, meaning day 108 falls 2 weekdays after Monday.

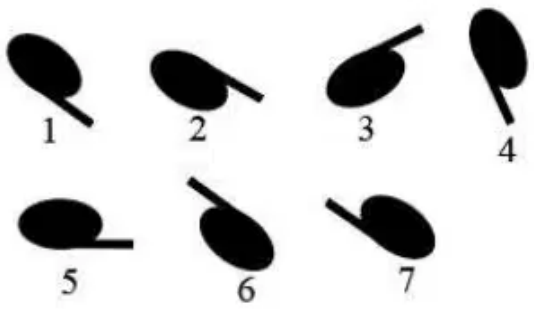
Step 4: Read off the weekday.
Counting 2 days after Monday: 1 day after Monday is Tuesday, 2 days after Monday is Wednesday.

Final Answer:
The 12th rest day falls on a Wednesday.

Wednesday

Quick Tip: The rest days fall on day numbers 9, 18, 27, and so on. Find day number 108, the 12th rest, and count that many days after the starting Monday, using the fact that the week repeats every 7 days.

. From the images below (1 to 7), find the 3 odd ones out.



(A) 1, 2, 3

(B) 2, 3, 7

(C) 3, 7, 4

(D) 4, 1, 6

Correct Answer: (B) 2, 3, 7

Solution:

Step 1: See what each figure is built from.
Every one of the seven figures is the same basic shape, a rounded oval head with a thin straight handle sticking out of it, a bit like a small table tennis paddle or a comma. Only the rotation and the handle's exact position seem to differ from figure to figure at first glance.

Step 2: Turn each figure so the handle points the same way.
If you mentally rotate every figure so its handle points straight down, the rounded head above it can lean toward the left or toward the right of the handle. This leaning direction does not change no matter how much you rotate a figure, since rotating a shape never swaps left for right. Only flipping the figure over, a mirror image, can swap which side the head leans towards.

Step 3: Sort the figures by which way the head leans.
Doing this rotation check on all seven figures shows that figures 1, 4, 5 and 6 all have their head leaning to the same side of the handle once turned to a common direction.
Figures 2, 3 and 7 have their head leaning to the opposite side instead, which means these three are mirror images of the other four, not simple rotations of them.

Step 4: Identify the odd ones out.

Since a genuine rotation can never turn a shape into its mirror image, figures 2, 3 and 7 cannot belong to the same family as 1, 4, 5 and 6. These three are the ones that stand apart from the rest.

Final Answer:

The three odd ones out are figures 2, 3 and 7.

$$\boxed{2,\ 3,\ 7}$$

Quick Tip: Turn each figure so its handle points the same direction, then check which side the rounded head leans toward. Three figures lean the opposite way from the other four.

. Babloo and Bunty describe the result of a race among Snehal, Tanmay, and Waman.

Babloo: "Tanmay won; Waman was second."

Bunty: "Snehal won; Tanmay came second."

Each boy made exactly one true and one false statement. What was the correct finishing order (1st, 2nd, 3rd)?

(A) Snehal, Waman, Tanmay

(B) Snehal, Tanmay, Waman

(C) Waman, Snehal, Tanmay

(D) Tanmay, Waman, Snehal

Correct Answer: (A) Snehal, Waman, Tanmay

Solution:

Step 1: Write down both statements as separate claims.
Babloo makes two claims: Tanmay won the race, call it B1, and Waman finished second, call it B2.
Bunty makes two claims: Snehal won the race, call it C1, and Tanmay finished second, call it C2.
Each boy has exactly one true claim and one false claim, never both true or both false.

Step 2: Try the case where B1 is true and B2 is false.
If B1 is true, Tanmay finished first. If B2 is false, Waman did not finish second, so Waman must be third, which leaves Snehal in second place.
Check Bunty's claims against this order, Tanmay first, Snehal second, Waman third. C1 says Snehal won, but Snehal is second here, so C1 is false. C2 says Tanmay finished second, but Tanmay is first here, so C2 is also false.
Both of Bunty's claims come out false, which breaks the rule that each boy has exactly one true and one false claim, so this case cannot be correct.

Step 3: Try the other case, B1 false and B2 true.
If B1 is false, Tanmay did not win. If B2 is true, Waman finished second.
Since Waman is second, Snehal and Tanmay share first and third place. Tanmay did not win, from B1 being false, so Tanmay must be third, which leaves Snehal in first place.
The order so far is Snehal first, Waman second, Tanmay third.

Step 4: Check this order against Bunty's claims.
C1 says Snehal won, true, since Snehal is first. C2 says Tanmay finished second, false, since Tanmay is third.

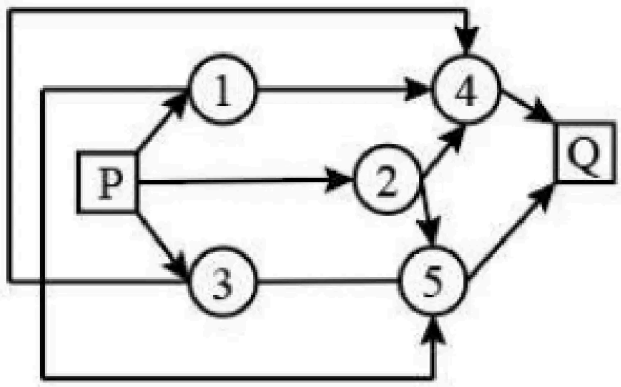
That gives Bunty exactly one true and one false claim, matching the rule, and Babloo also has exactly one true, B2, and one false, B1, claim. Every condition of the problem is satisfied.

Final Answer:
The finishing order is Snehal first, Waman second, and Tanmay third.

Snehal, Waman, Tanmay

Quick Tip: Try each of Babloo's two claims as the true one in turn, work out the order it forces, and keep only the version where Bunty also ends up with exactly one true and one false claim.

. What is the number of routes from P to Q in the network shown?



(A) 5

(B) 6

(C) 9

(D) 12

Correct Answer: (C) 9

Solution:

Step 1: Map out every arrow in the network.

Starting at P, three arrows lead out: $P \to 1$, $P \to 2$, and $P \to 3$.

From node 1, arrows lead to node 2, node 4, and node 5.

From node 2, whether reached from P or from node 1, arrows lead to node 4 and node 5.

From node 3, arrows lead to node 2 and to node 4.

Finally, both node 4 and node 5 have a single arrow into Q.

Step 2: Count the routes that pass through node 1.

From node 1 you can go straight to 4, straight to 5, or detour through 2 first.

That gives four routes: $P \to 1 \to 4 \to Q$, $P \to 1 \to 5 \to Q$, $P \to 1 \to 2 \to 4 \to Q$, $P \to 1 \to 2 \to 5 \to Q$.

Step 3: Count the routes that pass through node 2 directly from P.

From node 2 you can go to 4 or to 5, giving two more routes: $P \to 2 \to 4 \to Q$ and $P \to 2 \to 5 \to Q$.

Step 4: Count the routes that pass through node 3.

From node 3 you can go straight to 4, or detour through 2 first and then reach either 4 or 5.

That gives three routes: $P \to 3 \to 4 \to Q$, $P \to 3 \to 2 \to 4 \to Q$, $P \to 3 \to 2 \to 5 \to Q$.

Final Answer:

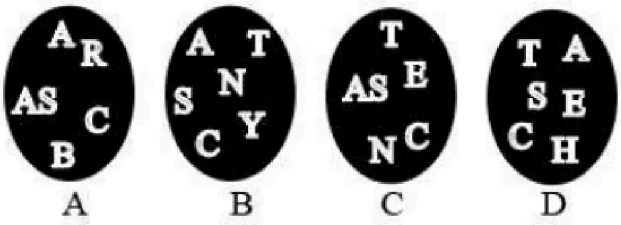
Adding every branch: 4 routes through node 1, plus 2 routes through node 2, plus 3 routes through node 3.

$$4 + 2 + 3 = 9$$

9

Quick Tip: Trace every left-to-right arrow path from P to Q one node at a time, and count separately the routes through node 1, through node 2 directly, and through node 3, being careful not to double count paths that reach node 2 via node 1 or node 3.

. Find the circle that does *not* include a word using all its letters.



(A) A

(B) B

(C) C

(D) D

Correct Answer: (A) A

Solution:

Each circle scatters six letters around its border. The question asks which circle's letters cannot be rearranged into one real English word using every letter exactly once.

1. **Circle B (A, T, S, N, C, Y)**: these six letters rearrange into SCANTY, a real word meaning barely enough. This circle does contain a valid word.

2. **Circle C (T, A, S, E, N, C)**: these six letters rearrange into ASCENT, a real word meaning a climb upward. This circle does contain a valid word.
3. **Circle D (T, A, S, E, C, H)**: these six letters rearrange into CHASTE, a real word meaning pure or restrained. This circle does contain a valid word.
4. **Circle A (A, R, A, S, C, B)**: these six letters include the letter A twice, alongside R, S, C, and B. Dropping one of the repeated A's gives CRABS, a real word, but that only uses five of the six letters. No six-letter English word can be built from A, A, B, C, R, and S together, so this circle does not contain a valid word.

Since circles B, C, and D each hide a genuine English word, SCANTY, ASCENT, and CHASTE, while circle A does not, circle A is the one that fails the test.

Let's summarize:

- SCANTY, ASCENT, and CHASTE are all valid six-letter anagrams found in circles B, C, and D.
- Circle A repeats the letter A, which blocks any six-letter word from forming.

The correct choice is circle A.

Quick Tip: Rearrange the six letters of each circle. Three circles spell an ordinary English word; look closely at which circle repeats a letter in a way that blocks any word from forming.

. Eight of the nine numbers $2, 3, 4, 5, 7, 10, 11, 12, 13$ are to be placed in the empty cells of the 3×4 array (with $1, 9, 14, 15$ already placed) so that the arithmetic average of the numbers in each row and each column is the same integer. Which one number must be left out?

1			15
	9		
		14	

(A) 4

(B) 10

(C) 15

(D) 7

Correct Answer: (B) 10

Solution:

Step 1: Set up what the common average tells us.

Call the shared average M. The grid has 3 rows of 4 numbers each, so every row must sum to $4M$.

The grid has 4 columns of 3 numbers each, so every column must sum to $3M$.

Adding the three row sums gives the grand total of all 12 numbers in the grid:

$$\text{Total} = 3 \times 4M = 12M$$

So the total of all 12 entries must be a multiple of 12.

Step 2: Work out the total for each possible number left out.

The four fixed numbers already in the grid sum to $1 + 9 + 14 + 15 = 39$.

The nine candidate numbers sum to $2+3+4+5+7+10+11+12+13=67$.

If x is the one number left out, the grid's total is

$$39+(67-x)=106-x$$

Step 3: Find which x makes the total divisible by 12.

For $x=4$: $106-4=102$, not divisible by 12.

For $x=10$: $106-10=96=12\times 8$, divisible by 12.

For $x=15$: 15 is not even one of the nine candidate numbers, so it cannot be the number left out.

For $x=7$: $106-7=99$, not divisible by 12.

Only $x=10$ works, giving total 96 and common average $M=96/12=8$.

Step 4: Confirm a valid grid actually exists.

With average 8, each row must sum to 32 and each column must sum to 24. One valid filling is:

Row 1: 1, 13, 3, 15 (sum 32). Row 2: 11, 9, 7, 5 (sum 32). Row 3: 12, 2, 14, 4 (sum 32).

Checking columns: $1+11+12=24$, $13+9+2=24$, $3+7+14=24$, $15+5+4=24$, all correct.

This uses every candidate number except 10, confirming the construction works.

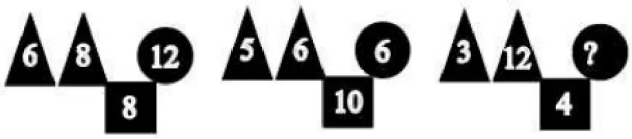
Final Answer:

The number that must be left out is 10.

$$\boxed{10}$$

Quick Tip: The total of all 12 numbers in the grid must be a multiple of 12, since it equals 3 times the row sum. Test each option against this rule before trying to build the grid.

. What number will replace the question mark?



(A) 40

(B) 18

(C) 19

(D) 24

Correct Answer: (B) 18

Solution:

Step 1: Identify the shapes involved in each group.

Each group has two triangles, one square, and one circle. Call the two triangle numbers t_1 and t_2, the square number s, and the circle number c.

Group 1: $t_1 = 6, t_2 = 8, s = 8, c = 12$. Group 2: $t_1 = 5, t_2 = 6, s = 10, c = 6$. Group 3: $t_1 = 3, t_2 = 12, s = 4, c = ?$.

Step 2: Test a relationship between the four numbers using Group 1.

Multiply the two triangle numbers: $6 \times 8 = 48$.

Multiply the square and circle numbers: $8 \times 12 = 96$.

Notice that $96 = 2 \times 48$, so the product of the square and the circle is exactly twice the product of the two triangles.

Step 3: Confirm the same relationship with Group 2.

Triangle product: $5 \times 6 = 30$. Square times circle: $10 \times 6 = 60$.

Again, $60 = 2 \times 30$, so the pattern holds:

$$s \times c = 2 \times t_1 \times t_2$$

Step 4: Apply the rule to Group 3.

Triangle product: $3 \times 12 = 36$, so $2 \times 36 = 72$.

The square number is 4, so:

$$4 \times c = 72$$

$$c = \frac{72}{4} = 18$$

Final Answer:

The missing circle number is 18.

$$\boxed{18}$$

Quick Tip: Compare the product of the two triangle numbers with the product of the square and circle numbers in each group. One is always exactly double the other.

. Where should the letter 'W' be placed?

(A) Above

(B) Below

(C) Both

(D) None

Correct Answer: (B) Below

Solution:

Step 1: Read off the two given rows.
Above the line: B, C, D, E, J, K, L, M. Below the line: A, F, G, H, I, N.

Step 2: Group the full alphabet into blocks, starting with the single letter A.
Writing the alphabet out gives: A, then BCDE, then FGHI, then JKLM, then NOPQ, then RSTU, then VWXY, then Z.

Step 3: Match each block to a row.
A sits alone below the line. BCDE sits above the line, matching the given "B C D E". FGHI sits below the line, matching the given "F G H I". JKLM sits above the line, matching the given "J K L M".
So the blocks alternate below, above, below, above, and so on: A (below), BCDE (above), FGHI (below), JKLM (above), NOPQ (below), RSTU (above), VWXY (below), Z (above).

Step 4: Locate W inside this pattern.
Numbering the blocks in order, A is block 1, BCDE is block 2, FGHI is

block 3, JKLM is block 4, NOPQ is block 5, RSTU is block 6, VWXY is block 7, and Z is block 8.
The odd-numbered blocks (1, 3, 5, 7) sit below the line, and the even-numbered blocks (2, 4, 6, 8) sit above the line, exactly matching the pattern already given.
The letter W belongs to block 7 (V, W, X, Y), which is an odd-numbered block.

Final Answer:
Since block 7 sits below the line, W must go below.

Below

Quick Tip: After the lone letter A, the alphabet splits into blocks of four letters that alternate above and below the line. Work out which block W falls into.

. At a family reunion were the following people: one grandfather, one grandmother, two fathers, two mothers, four children, three grandchildren, one brother, two sisters, two sons, two daughters, one father-in-law, one mother-in-law, and one daughter-in-law. But not as many people attended as it sounds. How many people were there?

(A) 5

(B) 10

(C) 15

(D) 7

Correct Answer: (D) 7

Solution:

Step 1: Understanding the Question:

The list of roles sounds like a huge gathering, but many of these roles belong to the same real people wearing different "hats" at once. We need to find the smallest family that can genuinely produce every role on the list.

Step 2: Key Formula or Approach:

Build the family from the top generation down, and check that every listed role is covered by someone already placed, instead of adding a brand new person for each role.

Step 3: Detailed Explanation:

Start with a grandfather and a grandmother. This already covers "one grandfather" and "one grandmother".

The grandparents have one son, who is married. This son is a father to his own children, and one of the "two fathers"; he is also one of the "two sons" (a son to his parents).

The son's wife is the "daughter-in-law" to the grandparents, and she is also a mother to her own children, covering one of the "two mothers".

The grandfather is automatically this wife's father-in-law, and the grandmother is automatically her mother-in-law, covering "one father-in-law" and "one mother-in-law" without adding anyone new.

The son and his wife have three children: one boy and two girls. The boy is the "one brother" to his sisters, and also the second of the "two sons". The two girls are the "two sisters" to their brother, and also the "two daughters".

These three children are also the "three grandchildren" of the grandfather and grandmother, and together with the son of the grandparents they make up the "four children" (the son is a child of

the grandparents, and the three kids are children of the son and his wife).

Step 4: Final Answer:

The complete family needed is: grandfather, grandmother, their son, their daughter-in-law, and the couple's three children (one son and two daughters).

That is $2 + 2 + 3 = 7$ distinct people, and every role in the list is accounted for.

$\boxed{7}$

Quick Tip: Most of the roles overlap: one person can be a father, a son, and a son-in-law all at once. Try to build the smallest possible three-generation family that covers every role listed.

. On the counter are six squares marked 1, 2, 3, 4, 5, 6. Players are invited to place as much money as they wish on any one square. Three dice are then thrown.

- If your number appears on one die only, you get your money back plus the same amount.
- If two dice show your number, you get your money back plus twice the amount you placed on the square.
- If your number appears on all three dice, you get your money back plus three times the amount.
- If the number is not on any of the dice, the operator gets your money.

For example, suppose that you bet one Rupee on square No. 6. If one die shows a 6, you get your Rupee back plus another Rupee. If two dice show 6, you get back your Rupee plus two Rupees. If three dice show 6, you get your Rupee back plus three Rupees. From a player's point of view, the chance of his number showing on one die is $\frac{1}{6}$, but since there are three dice, the chances must be $\frac{3}{6}$ or $\frac{1}{2}$, therefore the game is a fair one. Of course this is the way the operator of the game wants everyone to reason, for it is quite fallacious. What is the probable story?

(A) Operator gets a profit of 6% on each Rupee bet.

(B) Operator suffers a loss of 7.8% on each Rupee bet.

(C) Operator gets a profit of 7.8% on each Rupee bet.

(D) The player suffers a loss of 6% on each Rupee bet.

Correct Answer: (C) Operator gets a profit of 7.8% on each Rupee bet.

Solution:

Step 1: Work out the correct probability of each outcome.
With three independent dice, there are $6^3 = 216$ equally likely outcomes in total, not a simple sum of three separate $\frac{1}{6}$ chances.

Probability your number appears on exactly one die: choose which one of the three dice shows it (3 ways), that die matches (probability $\frac{1}{6}$), and the other two dice must miss it (probability $\frac{5}{6}$ each):

$$P(\text{exactly 1}) = 3 \times \frac{1}{6} \times \frac{5}{6} \times \frac{5}{6} = \frac{75}{216}$$

Probability your number appears on exactly two dice:

$$P(\text{exactly 2}) = 3 \times \frac{1}{6} \times \frac{1}{6} \times \frac{5}{6} = \frac{15}{216}$$

Probability your number appears on all three dice:

$$P(\text{exactly 3}) = \frac{1}{6} \times \frac{1}{6} \times \frac{1}{6} = \frac{1}{216}$$

Probability your number appears on none of the dice:

$$P(\text{none}) = \frac{5}{6} \times \frac{5}{6} \times \frac{5}{6} = \frac{125}{216}$$

These add to $75 + 15 + 1 + 125 = 216$, which checks out.

Step 2: Work out the operator's net gain or loss for a 1 Rupee bet, outcome by outcome.

If the number appears on none of the dice, the operator keeps the player's 1 Rupee: operator gains 1.

If the number appears on exactly one die, the operator pays 1 extra Rupee: operator loses 1.

If the number appears on exactly two dice, the operator pays 2 extra Rupees: operator loses 2.

If the number appears on all three dice, the operator pays 3 extra

Rupees: operator loses 3.

Step 3: Combine these into the operator's expected earning per Rupee staked.

$$E = \left(\frac{125}{216}\right)(1) + \left(\frac{75}{216}\right)(-1) + \left(\frac{15}{216}\right)(-2) + \left(\frac{1}{216}\right)(-3)$$

$$E = \frac{125 - 75 - 30 - 3}{216} = \frac{17}{216}$$

Step 4: Convert to a percentage.

$$\frac{17}{216} \approx 0.0787 = 7.87\% \approx 7.8\%$$

Final Answer:

The operator earns a small but real profit of about 7.8% on every Rupee bet. The naive claim that three separate $\frac{1}{6}$ chances simply add up to a fair $\frac{1}{2}$ ignores that the payout only grows 1, 2, or 3 times the stake, while matching your number twice or three times is far rarer than matching it once, so the odds favor the house.

$$\boxed{\text{Operator profit} \approx 7.8\%}$$

Quick Tip: Do not just add the three $\frac{1}{6}$ chances together. Work out the exact probability of matching on 0, 1, 2, or 3 dice using $6^3 = 216$ total outcomes, then weigh each payout against those probabilities.

. Jaideep was given some money by his mother on his birthday. Jaideep spent all of it in five stores. In each store he spent one rupee more than half of what he had when he came in. How much did he get from his mother?

(A) Rs. 25

(B) Rs. 30

(C) Rs. 50

(D) Rs. 62

Correct Answer: (D) Rs. 62

Solution:

Step 1: Set up the relationship between what he has and what remains.

Let y_i be the amount of money Jaideep has when he walks into store i. In each store he spends "one rupee more than half of what he had", so he spends $\frac{y_i}{2} + 1$.

What remains after that store is

$$y_i - \left(\frac{y_i}{2} + 1\right) = \frac{y_i}{2} - 1$$

and this remaining amount becomes y_{i+1}, the money he carries into the next store.

Step 2: Use the fact that he has exactly Rs 0 left after the fifth store.

After store 5, nothing remains, so

$$\frac{y_5}{2} - 1 = 0 \implies y_5 = 2$$

Step 3: Work backwards, store by store, using $y_i = 2(y_{i+1} + 1)$.
This backward formula comes directly from rearranging $y_{i+1} = \frac{y_i}{2} - 1$.

$$y_4 = 2(y_5 + 1) = 2(2 + 1) = 6$$

$$y_3 = 2(y_4 + 1) = 2(6 + 1) = 14$$

$$y_2 = 2(y_3 + 1) = 2(14 + 1) = 30$$

$$y_1 = 2(y_2 + 1) = 2(30 + 1) = 62$$

Step 4: Check the answer by simulating forward from Rs 62.
Store 1: has 62, spends $31 + 1 = 32$, left with 30.
Store 2: has 30, spends $15 + 1 = 16$, left with 14.
Store 3: has 14, spends $7 + 1 = 8$, left with 6.
Store 4: has 6, spends $3 + 1 = 4$, left with 2.
Store 5: has 2, spends $1 + 1 = 2$, left with 0.
Every rupee is spent in exactly five stores, ending at precisely Rs 0, confirming the value is correct.

Final Answer:
Jaideep's mother gave him Rs 62. Testing Rs 30 directly shows it cannot satisfy the question: starting with Rs 30, he already reaches Rs 0 after only the fourth store, one store short of the five stores the

question describes, so Rs 30 fails the problem's own condition. Rs 62 is the value consistent with all five stores.

$$\boxed{62}$$

Quick Tip: Work backwards from the fact that nothing is left after the fifth store. If he leaves each store with $\frac{y}{2} - 1$, then what he had entering that store is $2(\text{amount left} + 1)$.

. Consider the following two statements to be true, even if they seem to be at variance from commonly known facts. Then decide which of the given conclusions logically follows from the two given statements.

Statements: All lawyers are extrovert. Some wise men are extrovert.

Conclusions:
(a) All lawyers are wise men.
(b) All wise men are lawyers.
(c) Some extrovert are wise men.
(d) All extrovert are lawyers.

(A) Only (a) follows

(B) Only (b) and (c) follow

(C) Only (a) and (c) follow

(D) Only (c) follows

Correct Answer: (D) Only (c) follows

Solution:

Step 1: Understanding the Question:
We are given two statements about lawyers, extroverts and wise men, and we must decide which of four proposed conclusions logically follows using the rules of syllogism.

Step 2: Key Formula or Approach:
A universal statement like "All A are B" places the whole of A inside B, and it cannot be flipped into "All B are A." A particular statement like "Some A are B" means A and B share some common region, and this sharing works both ways, so "Some A are B" always allows us to say "Some B are A." This rule is called conversion, and it is the one certain inference we can draw from a particular statement.

Step 3: Detailed Explanation:
Statement 1: "All lawyers are extrovert" puts the entire set of lawyers inside the set of extroverts.
Statement 2: "Some wise men are extrovert" means the set of wise men overlaps with the set of extroverts, at least partly.
Check (a) "All lawyers are wise men": statement 1 only places lawyers inside extroverts, it says nothing about lawyers overlapping wise men, so this does not follow.
Check (b) "All wise men are lawyers": nothing in either statement connects the whole class of wise men to lawyers, so this does not follow.
Check (c) "Some extrovert are wise men": by the conversion rule, "Some wise men are extrovert" directly gives "Some extrovert are wise men," so this follows with certainty.
Check (d) "All extrovert are lawyers": this wrongly reverses the universal statement 1 into another universal claim; only "some extrovert are lawyers" would be valid, never "all," so this does not follow.

Step 4: Final Answer:
Only conclusion (c) follows with certainty, so the answer is option (D).

Only (c) follows

Quick Tip: A "some" statement can always be reversed (some A are B implies some B are A), but an "all" statement can never be fully reversed.

. The following are the results of a survey conducted on a small cross-section of students from the Symbiosis Group of institutes, to determine the readership of three magazines: Business India, Outlook and India Today. This survey was conducted in December 2006.

Number of students who read only Business India = 40
Number of students who read only Outlook = 60
Number of students who read only India Today = 110
Number of students who read all three magazines = 30
Number of students who read Business India and India Today, but not Outlook = 20
Number of students who read Business India and Outlook, but not India Today = 50
Number of students who read Outlook and India Today, but not Business India = 40

What was the total number of students surveyed?

(A) 210

(B) 350

(C) 390

(D) None of these

Correct Answer: (B) 350

Solution:

Step 1: Understanding the Question:
We have a three magazine reading survey (Business India, Outlook, India Today) broken into "only one magazine," "exactly two magazines," and "all three magazines" counts, and we need the total number of students surveyed.

Step 2: Key Formula or Approach:
In a three set Venn diagram, every student falls into exactly one of seven non-overlapping regions: only one magazine (three regions), exactly two magazines (three regions), or all three magazines (one region). So the total surveyed is simply the sum of all seven given regions.

Step 3: Detailed Explanation:
Only one magazine: only Business India = 40, only Outlook = 60, only India Today = 110.

$$\text{Only one} = 40 + 60 + 110 = 210$$

Exactly two magazines: Business India and India Today only = 20, Business India and Outlook only = 50, Outlook and India Today only = 40.

$$\text{Exactly two} = 20 + 50 + 40 = 110$$

All three magazines = 30.

Adding every region gives the total surveyed:

$$\text{Total} = 210 + 110 + 30 = 350$$

Step 4: Final Answer:

The total number of students surveyed is 350, which is option (B).

$$\boxed{350}$$

Quick Tip: Add up every distinct Venn diagram region (only one magazine, plus exactly two magazines, plus all three) exactly once.

. The following are the results of a survey conducted on a small cross-section of students from the Symbiosis Group of institutes, to determine the readership of three magazines: Business India, Outlook and India Today. This survey was conducted in December 2006.

Number of students who read only Business India = 40
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Number of students who read only India Today = 110
Number of students who read all three magazines = 30
Number of students who read Business India and India Today, but not Outlook = 20
Number of students who read Business India and Outlook, but not India Today = 50
Number of students who read Outlook and India Today, but not Business India = 40

How many students did not read Business India?

(A) 40

(B) 170

(C) 240

(D) None of these

Correct Answer: (D) None of these

Solution:

Step 1: Understanding the Question:
Using the same survey data, we need to count students who did not read Business India at all.

Step 2: Key Formula or Approach:

A student "did not read Business India" only if that student falls entirely outside the Business India circle in the Venn diagram. So we add up every region that has no Business India component at all, and skip every region that touches Business India in any way.

Step 3: Detailed Explanation:
The regions with no Business India readers are: only Outlook = 60, only India Today = 110, and Outlook and India Today only (no Business India) = 40.

$$\text{Did not read BI} = 60 + 110 + 40 = 210$$

Now compare this to the options given: 40, 170 and 240 are all listed, but the correct count is 210, which is not among them.

Step 4: Final Answer:
Since 210 is not listed among options (A), (B) or (C), the correct choice is option (D), None of these.

$$\boxed{210 \Rightarrow \text{None of these}}$$

Quick Tip: Subtract everyone who touches the Business India circle (only BI, plus both overlaps with BI, plus all three) from the total surveyed.

. Using the same survey data from the earlier questions: in May 2007, with the same group of students, all of them read India Today, 120 read Outlook, and none read Business India.

How many students read only India Today?

(A) 60

(B) 110

(C) 230

(D) None of these

Correct Answer: (C) 230

Solution:

Step 1: Understanding the Question:
This question changes the scenario to May 2007, using the same group of 350 students found earlier. Now every student reads India Today, 120 also read Outlook, and nobody reads Business India. We need the number who read only India Today.

Step 2: Key Formula or Approach:
Since nobody reads Business India, only two magazines matter now: India Today and Outlook. Since every student reads India Today, the India Today circle covers the entire surveyed group. The 120 Outlook readers must also lie inside this same group. So "only India Today" readers are simply everyone minus the ones who also pick up Outlook.

Step 3: Detailed Explanation:
Total surveyed (same group as before) = 350.
Students who also read Outlook = 120.
Since nobody reads Business India, these 120 Outlook readers overlap only with India Today, not with a third magazine.

$$\text{Only India Today} = \text{Total} - \text{Outlook readers} = 350 - 120 = 230$$

Step 4: Final Answer:

230 students read only India Today, so the answer is option (C).

$$\boxed{230}$$

Quick Tip: Since every student reads India Today in May 2007, only-India-Today readers equal total students minus Outlook readers.

. An ingredient in coffee, known as RTC, has been found to inactivate common cold viruses in experiments. In earlier experiments, researchers found that inactivated common cold viruses can convert healthy cells into cancer cells. It can be concluded that the use of coffee can cause cancer.

Which one of the following, if true, most seriously weakens the argument?

(A) Several teams of scientists performed the various experiments, and all of the teams had similar results.

(B) The carcinogenic effect of RTC could be neutralized by the other ingredients found in coffee.

(C) When RTC kills common cold viruses it weakens the immune system, and this might diminish the body's ability to fight other viruses, including viruses linked to cancers.

(D) If chemists modify the structure of RTC, RTC can be safely incorporated into medications to prevent the common cold.

Correct Answer: (C) When RTC kills common cold viruses it weakens the immune system, and this might diminish the body's ability to fight other viruses, including viruses linked to cancers.

Solution:

The argument builds a chain: RTC (an ingredient in coffee) inactivates common cold viruses, earlier experiments showed inactivated common cold viruses can turn healthy cells into cancer cells, so coffee use can cause cancer. To weaken this, we need a statement that breaks or casts real doubt on this specific chain of reasoning, not one that just supports it or talks about something unrelated.

1. **Option A**: several teams got similar results in the experiments. This only makes the original experimental findings more reliable, it does not attack the reasoning that links RTC to cancer. This strengthens the argument rather than weakening it.
2. **Option B**: other ingredients in coffee neutralize the carcinogenic effect of RTC. This sounds like a weakener, but it does not really challenge whether RTC itself, through the mechanism described, is dangerous. It only asserts a separate, unexplained neutralizing effect, which is a weaker and less direct challenge than option C.
3. **Option C**: RTC kills the cold virus by weakening the immune system, and it is this weakened immune system, not the "inactivated virus becomes cancerous" mechanism the argument describes, that could let other cancer linked viruses take hold. This gives a completely different explanation for any cancer risk, one that has nothing to do with the specific inactivated-virus-to-cancer-cell pathway the argument relies on. This directly undercuts the argument's own causal chain.

4. **Option D**: modifying RTC's structure could let chemists use it safely in cold medications. This talks about a future, chemically altered version of RTC, not the RTC naturally present in coffee today, so it does not address whether current coffee use causes cancer.

Option C offers the strongest challenge because it supplies an alternate mechanism for cancer risk (immune weakening opening the door to other viruses) instead of the mechanism the argument depends on (the cold virus itself turning cancer causing after inactivation). This breaks the specific causal link the conclusion needs.

Let's summarize:

- To weaken an argument, attack the causal chain it depends on, not just the general subject.
- An alternate explanation for the same outcome is one of the strongest ways to weaken a "X causes Y" conclusion.

The statement that most seriously weakens the argument is option (C).

Quick Tip: Look for the option that offers a different cause for the cancer risk, one that breaks the argument's assumed "inactivated virus becomes cancerous" chain.

. A census taker approaches a house and asks the woman, "How many children do you have, and what are their ages?"

Woman: "I have three children. The product of their ages is 36, and the sum of their ages is equal to the house number of the house next door."

The census taker checks the house number, then says, "I need more information."

Woman: "My oldest child is sleeping upstairs."

What are the ages of the three children?

(A) 9, 2, 2

(B) 6, 6, 1

(C) 12, 3, 1

(D) 6, 3, 2

Correct Answer: (A) 9, 2, 2

Solution:

Step 1: List all triples whose ages multiply to 36.
Since the product of the three children's ages is 36, list every way to write 36 as a product of three positive whole numbers, along with each triple's sum.

Ages	Sum
1, 1, 36	38
1, 2, 18	21
1, 3, 12	16
1, 4, 9	14
1, 6, 6	13
2, 2, 9	13
2, 3, 6	11
3, 3, 4	10

Step 2: Use the "sum equals house number" clue.

The census taker knows the exact house number next door (the sum), yet still says "I need more information." This can only happen if two different triples share the exact same sum, so that knowing the sum alone cannot tell them apart.

Scanning the sums above, only 1, 6, 6 and 2, 2, 9 both add up to 13. Every other triple has a sum that no other triple matches, so the house number must be 13, and the two candidate triples are (1, 6, 6) and (2, 2, 9).

Step 3: Use the "oldest child" clue.

The woman then says her oldest child is sleeping upstairs, implying there is a single, clearly identified oldest child.

In the triple (1, 6, 6), two children are both aged 6, so there is no single oldest child, this triple is ruled out.

In the triple (2, 2, 9), the 9 year old is uniquely the oldest, which fits the clue perfectly.

Step 4: Final Answer:

The children's ages are 9, 2 and 2 years, matching option (A).

$$\boxed{9,\ 2,\ 2}$$

Quick Tip: Find product-36 triples whose sums tie (this is the ambiguous house number), then use "a single oldest child" to rule out the twin option.