

# AME CET Aptitude & Reasoning

## Sample Paper – 10

Duration: 30 Minutes

Maximum Marks: 120

### Instructions

- This paper contains **30** Multiple Choice Questions (Single Correct Answer), covering **Quantitative Aptitude** (Q1–15) and **Logical & Analytical Reasoning** (Q16–30), in the **AME CET** marking style.
- Each correct answer carries **+4 marks**. Each wrong answer carries **–1 mark**. Unattempted questions carry **0 marks**.
- Only **one** option is correct per question. Choose carefully.
- This is a **supplementary aptitude practice set** for AME CET aspirants; pacing is one minute per question, matching the main exam.
- Use of mobile phones, calculators, or any electronic gadget is strictly prohibited.

### Part A: Quantitative Aptitude

**Q1.** If 250 is decreased by 12%, the resulting value is:

- (A) 225
- (B) 230
- (C) 220
- (D) 210

**Q2.** An amount of Rs. 700 is divided between two people in the ratio 2 : 5. The smaller share is:

- (A) Rs. 250
- (B) Rs. 500
- (C) Rs. 140
- (D) Rs. 200



- Q3.** An article costing Rs. 600 is sold at a profit of 30%. Its selling price is:
- (A) Rs. 630
  - (B) Rs. 780
  - (C) Rs. 720
  - (D) Rs. 800
- Q4.** The average of the three numbers 8, 16, 24 is:
- (A) 24
  - (B) 12
  - (C) 18
  - (D) 16
- Q5.** A car has to cover a distance of 200 km at a steady speed of 50 km/h. The time taken is:
- (A) 5 hours
  - (B) 4 hours
  - (C) 3 hours
  - (D) 4.5 hours
- Q6.** A can finish a piece of work in 5 days and B can finish the same work in 20 days. Working together, they will finish it in:
- (A) 4 days
  - (B) 10 days
  - (C) 5 days
  - (D) 8 days
- Q7.** The simple interest on Rs. 1200 at 5% per annum for 4 years is:
- (A) Rs. 120
  - (B) Rs. 300



(C) Rs. 240

(D) Rs. 480

**Q8.** A person's present age is 30 years. The person's age 10 years from now will be:

(A) 40 years

(B) 50 years

(C) 35 years

(D) 20 years

**Q9.** A shopkeeper marks an article 30% above its cost of Rs. 200 and then allows a 30% discount on the marked price. The selling price is:

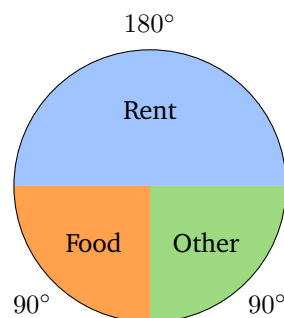
(A) Rs. 200

(B) Rs. 140

(C) Rs. 182

(D) Rs. 260

**Q10.** The pie chart below shows how a household's monthly budget of Rs. 5,000 is split. The amount represented by the **Rent** sector (a  $180^\circ$  half) is:



(A) Rs. 1,250

(B) Rs. 2,500

(C) Rs. 1,500

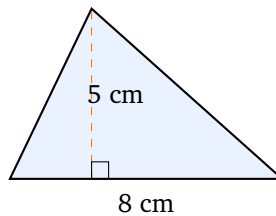
(D) Rs. 3,000



**Q11.** The average monthly salary of 5 employees is Rs. 12,000. The total of their salaries is:

- (A) Rs. 12,000
- (B) Rs. 50,000
- (C) Rs. 2,400
- (D) Rs. 60,000

**Q12.** The area of the triangle shown below, with base 8 cm and height 5 cm, is:



- (A)  $40 \text{ cm}^2$
- (B)  $13 \text{ cm}^2$
- (C)  $26 \text{ cm}^2$
- (D)  $20 \text{ cm}^2$

**Q13.** The number of hours in 2 days is:

- (A) 48
- (B) 24
- (C) 36
- (D) 72

**Q14.** A train 200 m long moving at 72 km/h crosses a pole in:

- (A) 20 seconds
- (B) 5 seconds
- (C) 15 seconds



(D) 10 seconds

**Q15.** The amount (principal plus interest) on Rs. 5000 at 20% per annum for 2 years, compounded annually, is:

(A) Rs. 7000

(B) Rs. 7200

(C) Rs. 7400

(D) Rs. 6000

### Part B: Logical & Analytical Reasoning

**Q16.** Find the next number in the series: 50, 45, 40, 35, ?

(A) 25

(B) 32

(C) 30

(D) 28

**Q17.** Find the next term in the series of vowels: A, E, I, ?

(A) U

(B) M

(C) O

(D) K

**Q18.** If  $A = 1, B = 2, \dots, Z = 26$  and  $CAT = 3 + 1 + 20 = 24$ , then the value of DOG is:

(A) 26

(B) 24

(C) 25

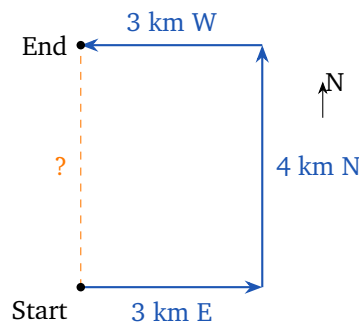
(D) 27



**Q19.** P's mother is Q's father's wife, and P and Q have the same parents. How are P and Q related?

- (A) Cousins
- (B) Parent and child
- (C) Unrelated
- (D) Siblings

**Q20.** A person walks 3 km towards the East, then 4 km towards the North, then 3 km towards the West, as shown. The net displacement from the starting point is:



- (A) 4 km North
- (B) 10 km North
- (C) 6 km East
- (D) 0 km

**Q21.** Choose the option that completes the analogy: **King : Crown :: Soldier : ?**

- (A) Gun
- (B) Helmet
- (C) Boots
- (D) Uniform

**Q22.** Choose the number that does **not** belong with the others: 8, 27, 64, 100



- (A) 27
- (B) 64
- (C) 100
- (D) 8

**Q23.** Statements: *All planets revolve around the Sun. Earth is a planet.* Which conclusion necessarily follows?

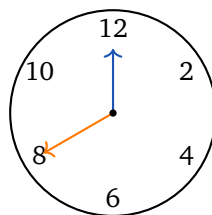
- (A) Earth revolves around the Sun
- (B) Earth is the Sun
- (C) Earth does not move
- (D) Only some planets revolve

**Q24.** Five children A, B, C, D, E sit in a row in that order from left to right, as shown. Who is the rightmost person?



- (A) A
- (B) E
- (C) D
- (D) C

**Q25.** The angle between the hour hand and the minute hand of a clock at exactly 8 o'clock, shown below, is:



- (A)  $120^\circ$

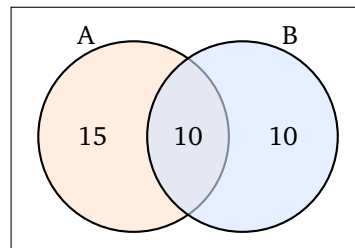


- (B)  $90^\circ$
- (C)  $150^\circ$
- (D)  $60^\circ$

**Q26.** The number of days from one Monday to the very next Monday is:

- (A) 6
- (B) 8
- (C) 14
- (D) 7

**Q27.** In a survey, set A has 25 members, set B has 20 members, and the union  $A \cup B$  has 35 members, as in the Venn diagram. How many members belong to **both** A and B?



- (A) 5
- (B) 15
- (C) 10
- (D) 20

**Q28.** In the figure series below, the arrow turns by a fixed  $90^\circ$  clockwise rotation at each step (up  $\rightarrow$  right  $\rightarrow$  down  $\rightarrow$  left). Which direction should the arrow in the fifth box point?



- (A) Towards the left



- (B) Upwards
- (C) Towards the right
- (D) Downwards

**Q29.** In a class, a student ranks 25th from the top and 25th from the bottom. The total number of students in the class is:

- (A) 49
- (B) 48
- (C) 50
- (D) 51

**Q30.** If in a certain pattern  $2 \rightarrow 3$ ,  $3 \rightarrow 5$  and  $4 \rightarrow 7$ , then  $10 \rightarrow ?$

- (A) 20
- (B) 21
- (C) 19
- (D) 17



**Detailed Solutions**

Q1.

**Solution**

**Concept — Percentage decrease:** A decrease of  $p\%$  multiplies the value by  $\left(1 - \frac{p}{100}\right)$ .

**Step 1 — Find the decrease amount:**

$$12\% \text{ of } 250 = \frac{12}{100} \times 250 = 30$$

**Step 2 — Subtract from the original:**

$$250 - 30 = 220$$

**Why other options are wrong:**

- Option A (225): subtracts 25, equal to 10%.
- Option B (230): subtracts only 20, equal to 8%.
- Option D (210): subtracts 40, equal to 16%.

**Final Answer:** 220  $\Rightarrow$   C

**Answer: (C)** [Go Back to Q1](#)

Q2.

**Solution**

**Concept — Dividing in a ratio:** Split the total into equal parts equal to the sum of the ratio terms.

**Step 1 — Find the total number of parts:**

$$2 + 5 = 7 \text{ parts}$$

**Step 2 — Find the value of one part:**

$$\frac{700}{7} = 100$$



**Step 3 — Find the smaller share (2 parts):**

$$2 \times 100 = 200$$

**Why other options are wrong:**

- Option A (250): an equal split, ignoring the ratio.
- Option B (500): the larger share ( $5 \times 100$ ), not the smaller.
- Option C (140): uses the wrong part value.

**Final Answer:** Rs. 200  $\Rightarrow$   D

**Answer: (D)** [Go Back to Q2](#)

**Q3.**

### Solution

**Concept — Selling price from profit percent:**  $SP = CP \times \left(1 + \frac{\text{Profit}\%}{100}\right)$ .

**Step 1 — Compute the profit:**

$$30\% \text{ of } 600 = \frac{30}{100} \times 600 = 180$$

**Step 2 — Add to the cost price:**

$$600 + 180 = 780$$

**Why other options are wrong:**

- Option A (630): adds only 5% of cost.
- Option C (720): adds 20%, not 30%.
- Option D (800): an over-estimate beyond 30%.

**Final Answer:** Rs. 780  $\Rightarrow$   B

**Answer: (B)** [Go Back to Q3](#)



Q4.

**Solution****Concept — Arithmetic mean:** The average equals the sum divided by the count.**Step 1 — Add the numbers:**

$$8 + 16 + 24 = 48$$

**Step 2 — Divide by the count (3):**

$$\frac{48}{3} = 16$$

**Why other options are wrong:**

- Option A (24): the largest number, not the average.
- Option B (12): too low; would need a sum of 36.
- Option C (18): would need a sum of 54.

**Final Answer:** 16  $\Rightarrow$   [Go Back to Q4](#)

Q5.

**Solution****Concept — Time from distance and speed:**  $\text{Time} = \frac{\text{Distance}}{\text{Speed}}$ .**Step 1 — Substitute the values:**

$$\text{Time} = \frac{200}{50}$$

**Step 2 — Compute:**

$$\frac{200}{50} = 4 \text{ hours}$$

**Why other options are wrong:**

- Option A (5): corresponds to a speed of 40 km/h.
- Option C (3): would cover only 150 km at 50 km/h.
- Option D (4.5): would cover 225 km at 50 km/h.

**Final Answer:** 4 hours  $\Rightarrow$  

**Answer: (B)** [Go Back to Q5](#)

Q6.

### Solution

**Concept — Combined work:** Add the per-day work rates of A and B.

**Step 1 — Write each rate:**

$$\text{A's rate} = \frac{1}{5}, \quad \text{B's rate} = \frac{1}{20}$$

**Step 2 — Add the rates:**

$$\frac{1}{5} + \frac{1}{20} = \frac{4}{20} + \frac{1}{20} = \frac{5}{20} = \frac{1}{4}$$

**Step 3 — Invert to get the time:**

$$\text{Time} = \frac{1}{1/4} = 4 \text{ days}$$

**Why other options are wrong:**

- Option C (5): equals A working alone, ignoring B's help.
- Option B (10) and Option D (8): larger than A alone (5 days), impossible when both work.

**Final Answer:** 4 days  $\Rightarrow$  **A**

**Answer: (A)** [Go Back to Q6](#)

Q7.

### Solution

**Concept — Simple Interest:**  $SI = \frac{P \times R \times T}{100}$ .

**Step 1 — Substitute**  $P = 1200$ ,  $R = 5$ ,  $T = 4$ :

$$SI = \frac{1200 \times 5 \times 4}{100}$$



**Step 2 — Compute the numerator:**

$$1200 \times 5 \times 4 = 24000$$

**Step 3 — Divide by 100:**

$$\frac{24000}{100} = 240$$

**Why other options are wrong:**

- Option A (120): uses  $T = 2$  years.
- Option B (300): uses  $R = 5$  for 5 years.
- Option D (480): doubles the correct interest.

**Final Answer:** Rs. 240  $\Rightarrow$   C

Answer: (C) [Go Back to Q7](#)

**Q8.**

### Solution

**Concept — Adding years to a present age:** The age after  $n$  years is the present age plus  $n$ .

**Step 1 — Identify the present age:** Present age = 30 years.

**Step 2 — Add 10 years:**

$$30 + 10 = 40$$

**Why other options are wrong:**

- Option D (20): subtracts 10 instead of adding.
- Option B (50): adds 20 years.
- Option C (35): adds only 5 years.

**Final Answer:** 40 years  $\Rightarrow$   A

Answer: (A) [Go Back to Q8](#)



Q9.

**Solution**

**Concept — Markup then discount:** Apply the markup and discount as multiplying factors on the cost price.

**Step 1 — Apply the 30% markup:**

$$\text{Marked price} = 1.30 \times 200 = 260$$

**Step 2 — Apply the 30% discount:**

$$\text{Selling price} = 0.70 \times 260$$

**Step 3 — Compute:**

$$0.70 \times 260 = 182$$

**Why other options are wrong:**

- Option A (200): assumes markup and discount cancel exactly, which they do not.
- Option B (140): applies a 30% discount directly to the cost.
- Option D (260): the marked price, before the discount.

**Final Answer:** Rs. 182  $\Rightarrow$   C

**Answer:** (C) [Go Back to Q9](#)

Q10.

**Solution**

**Concept — Reading a pie chart:** Each sector's share of the total equals its angle divided by  $360^\circ$ .

**Step 1 — Find the Rent fraction:**

$$\frac{180^\circ}{360^\circ} = \frac{1}{2}$$

**Step 2 — Apply it to the budget:**

$$\frac{1}{2} \times 5000 = 2500$$



Why other options are wrong:

- Option A (1250): corresponds to a  $90^\circ$  quarter.
- Option C (1500): does not match any sector here.
- Option D (3000): exceeds the  $180^\circ$  half.

Final Answer: Rs. 2,500  $\Rightarrow$  **B**

Answer: (B) [Go Back to Q10](#)

Q11.

### Solution

Concept — Total from average: Total = average  $\times$  count.

Step 1 — Identify the average and count: Average = 12000, count = 5.

Step 2 — Multiply:

$$12000 \times 5 = 60000$$

Why other options are wrong:

- Option A (12000): the average of one, not the total of five.
- Option B (50000): would require an average of 10000.
- Option C (2400): divides instead of multiplying.

Final Answer: Rs. 60,000  $\Rightarrow$  **D**

Answer: (D) [Go Back to Q11](#)

Q12.

### Solution

Concept — Area of a triangle:  $A = \frac{1}{2} \times \text{base} \times \text{height}$ .

Step 1 — Substitute base = 8, height = 5:

$$A = \frac{1}{2} \times 8 \times 5$$

Step 2 — Compute:

$$\frac{1}{2} \times 40 = 20 \text{ cm}^2$$

Why other options are wrong:



- Option A (40): forgets the factor  $\frac{1}{2}$ .
- Option B (13): adds base and height instead of multiplying.
- Option C (26): an incorrect doubling/sum.

**Final Answer:**  $20 \text{ cm}^2 \Rightarrow$  D

Answer: (D) [Go Back to Q12](#)

**Q13.**

### Solution

**Concept — Days to hours:** One day equals 24 hours.

**Step 1 — Multiply the number of days by 24:**

$$2 \times 24$$

**Step 2 — Compute:**

$$2 \times 24 = 48$$

**Why other options are wrong:**

- Option B (24): the hours in one day only.
- Option C (36): uses an incorrect 18 hours per day.
- Option D (72): uses three days instead of two.

**Final Answer:**  $48 \Rightarrow$  A

Answer: (A) [Go Back to Q13](#)

**Q14.**

### Solution

**Concept — Crossing a pole:** The train covers its own length while passing a pole; time = length  $\div$  speed.

**Step 1 — Convert the speed to m/s (multiply by  $\frac{5}{18}$ ):**

$$72 \times \frac{5}{18} = 20 \text{ m/s}$$



**Step 2 — Divide the length by the speed:**

$$\frac{200}{20} = 10 \text{ seconds}$$

**Why other options are wrong:**

- Option A (20): forgets to convert the speed to m/s.
- Option B (5): uses a speed of 40 m/s.
- Option C (15): does not match  $200 \div 20$ .

**Final Answer:** 10 seconds  $\Rightarrow$

[Go Back to Q14](#)

**Q15.**

### Solution

**Concept — Compound amount:**  $A = P \left(1 + \frac{R}{100}\right)^T$

**Step 1 — Substitute**  $P = 5000$ ,  $R = 20$ ,  $T = 2$ :

$$A = 5000 (1.2)^2$$

**Step 2 — Evaluate**  $(1.2)^2$ :

$$(1.2)^2 = 1.44$$

**Step 3 — Multiply:**

$$5000 \times 1.44 = 7200$$

**Why other options are wrong:**

- Option A (7000): uses simple interest  $(5000 + 2000)$ .
- Option D (6000): only one year's growth.
- Option C (7400): an over-estimate beyond 1.44.

**Final Answer:** Rs. 7200  $\Rightarrow$

[Go Back to Q15](#)



Q16.

**Solution**

**Concept — Arithmetic series with a constant difference:** Find the fixed gap between consecutive terms.

**Step 1 — List the differences:**

$$45 - 50 = -5, \quad 40 - 45 = -5, \quad 35 - 40 = -5$$

Each term decreases by 5.

**Step 2 — Apply the same decrease:**

$$35 - 5 = 30$$

**Why other options are wrong:**

- Option A (25): decreases by 10, not 5.
- Option B (32): decreases by only 3.
- Option D (28): decreases by 7.

**Final Answer:**  $30 \Rightarrow$   C

Answer: (C) [Go Back to Q16](#)

Q17.

**Solution**

**Concept — Sequence of vowels:** The series lists the vowels in order.

**Step 1 — Identify the pattern:**

$$A, E, I, \dots$$

These are the vowels of the English alphabet in order.

**Step 2 — State the next vowel:** After *I* comes *O*.

**Why other options are wrong:**

- Option A (U): the vowel that comes after O, one too far.
- Option B (M) and Option D (K): consonants, not vowels.

**Final Answer:**  $O \Rightarrow$   C



**Answer: (C)** [Go Back to Q17](#)

Q18.

### Solution

**Concept — Letter-value coding:** Replace each letter by its position and add.

**Step 1 — Write the positions of D, O, G:**

$$D = 4, \quad O = 15, \quad G = 7$$

**Step 2 — Add the values:**

$$4 + 15 + 7 = 26$$

**Why other options are wrong:**

- Option B (24): the value of CAT, not DOG.
- Option C (25): one short of the correct sum.
- Option D (27): one more than the correct sum.

**Final Answer:** 26  $\Rightarrow$  **A**

**Answer: (A)** [Go Back to Q18](#)

Q19.

### Solution

**Concept — Shared-parent relation:** Two people with the same mother and father are siblings.

**Step 1 — Interpret the statement:** “P’s mother is Q’s father’s wife” means P’s mother is also Q’s mother.

**Step 2 — Use the shared-parent fact:** Since P and Q have the same parents, they are brother/sister to each other, i.e. siblings.

**Why other options are wrong:**

- Option A (Cousins): would require different parents.
- Option B (Parent and child): a generational gap not present here.
- Option C (Unrelated): contradicts the shared parents.

**Final Answer:** Siblings  $\Rightarrow$  **D**



Answer: (D) [Go Back to Q19](#)

Q20.

### Solution

**Concept — Net displacement from perpendicular legs:** East and West movements cancel; the remaining North leg is the net displacement.

**Step 1 — Combine the East–West movements:**

$$3 \text{ km East} - 3 \text{ km West} = 0$$

The East and West legs cancel out.

**Step 2 — Account for the North movement:** Only the 4 km North leg remains.

**Step 3 — State the net displacement:**

4 km towards the North

**Why other options are wrong:**

- Option B (10 km North): adds all legs as if in one direction.
- Option C (6 km East): ignores that the West cancels the East.
- Option D (0 km): wrongly assumes the North leg also cancels.

**Final Answer:** 4 km North  $\Rightarrow$

Answer: (A) [Go Back to Q20](#)

Q21.

### Solution

**Concept — Head-gear analogy:** A crown is the characteristic head-covering of a king; find the matching head-gear for a soldier.

**Step 1 — Identify the relationship:** King  $\rightarrow$  Crown means “the protective/symbolic head-gear worn.”

**Step 2 — Apply to “Soldier”:** The head-gear a soldier wears is a *helmet*.

**Why other options are wrong:**

- Option A (Gun): a weapon, not head-gear.



- Option D (Uniform): clothing for the body, not the head.
- Option C (Boots): foot-wear, not head-gear.

**Final Answer:** Helmet  $\Rightarrow$

**Answer: (B)** [Go Back to Q21](#)

**Q22.**

### Solution

**Concept — Common property test:** Check whether all the numbers share a property; the exception is the odd one out.

**Step 1 — Test for perfect cubes:**

$$8 = 2^3, \quad 27 = 3^3, \quad 64 = 4^3$$

These three are perfect cubes.

**Step 2 — Examine 100:**

$$100 = 10^2$$

This is a perfect square, not a perfect cube.

**Step 3 — Conclude:** 100 breaks the “perfect cube” pattern, so it is the odd one out.

**Why other options are wrong:**

- Options A (27), B (64), D (8): all are perfect cubes, so they belong together.

**Final Answer:** 100  $\Rightarrow$

**Answer: (C)** [Go Back to Q22](#)

**Q23.**

### Solution

**Concept — Applying a universal rule to a member:** If “All A do X” and “E is an A,” then “E does X.”

**Step 1 — State the universal rule:** All planets revolve around the Sun.

**Step 2 — Apply it to Earth:** Earth is a planet, so Earth revolves around the Sun.

**Why other options are wrong:**



- Option C (Earth does not move): contradicts the rule.
- Option B (Earth is the Sun): nothing supports this.
- Option D (Only some planets revolve): contradicts “all planets revolve.”

**Final Answer:** Earth revolves around the Sun  $\Rightarrow$

**Answer:** (A) [Go Back to Q23](#)

Q24.

### Solution

**Concept — Reading a fixed left-to-right order:** The seats are in the order A, B, C, D, E from left to right.

**Step 1 — Identify the right end:** The rightmost seat is the last in the order.

**Step 2 — Read off that person:** The last child in A, B, C, D, E is E.

**Why other options are wrong:**

- Option A (A): the leftmost person.
- Option C (D): second from the right.
- Option D (C): the middle person.

**Final Answer:** E  $\Rightarrow$

**Answer:** (B) [Go Back to Q24](#)

Q25.

### Solution

**Concept — Clock angle:** The 12 hour-marks divide  $360^\circ$ , so each hour gap is  $30^\circ$ .

**Step 1 — Count the hour gaps at 8 o'clock:** At exactly 8:00 the minute hand is at 12 and the hour hand is at 8. The shorter way round (12 to 8) spans 4 hour marks.

**Step 2 — Multiply by  $30^\circ$ :**

$$4 \times 30^\circ = 120^\circ$$

**Why other options are wrong:**

- Option D ( $60^\circ$ ): two hour gaps (as at 2 o'clock).
- Option B ( $90^\circ$ ): three hour gaps (as at 3 o'clock).
- Option C ( $150^\circ$ ): five hour gaps (as at 5 o'clock).



**Final Answer:**  $120^\circ \Rightarrow$

**Answer:** (A) [Go Back to Q25](#)

**Q26.**

### Solution

**Concept — The weekly cycle:** The days of the week repeat every 7 days.

**Step 1 — Identify the period:** From one Monday, the next Monday occurs after one full week.

**Step 2 — State the number of days:**

$$\text{One week} = 7 \text{ days}$$

**Why other options are wrong:**

- Option A (6): would land on a Sunday.
- Option B (8): would land on a Tuesday.
- Option C (14): two weeks, the Monday after next.

**Final Answer:**  $7 \Rightarrow$

**Answer:** (D) [Go Back to Q26](#)

**Q27.**

### Solution

**Concept — Inclusion–exclusion:**  $n(A \cup B) = n(A) + n(B) - n(A \cap B)$ , so  $n(A \cap B) = n(A) + n(B) - n(A \cup B)$ .

**Step 1 — Substitute the known counts:**

$$n(A \cap B) = 25 + 20 - 35$$

**Step 2 — Compute:**

$$25 + 20 - 35 = 10$$

**Why other options are wrong:**

- Option A (5): subtracts the union the wrong way.
- Option B (15): only-A count, not the overlap.



- Option D (20): equals  $n(B)$ , not the intersection.

**Final Answer:**  $10 \Rightarrow$

**Answer:** (C) [Go Back to Q27](#)

**Q28.**

### Solution

**Concept — Fixed rotation pattern:** Identify the constant turn and continue it.

**Step 1 — Track the arrow:** Box 1 up, Box 2 right, Box 3 down, Box 4 left. Each step is a  $90^\circ$  clockwise turn.

**Step 2 — Apply one more  $90^\circ$  clockwise turn:** From “left,” another  $90^\circ$  clockwise turn brings the arrow back to *up*, completing the cycle.

**Why other options are wrong:**

- Option A (Left): that is Box 4’s direction, with no further turn.
- Option C (Right): that is Box 2’s direction.
- Option D (Downwards): that is Box 3’s direction.

**Final Answer:** Upwards  $\Rightarrow$

**Answer:** (B) [Go Back to Q28](#)

**Q29.**

### Solution

**Concept — Rank from both ends:** Total = (rank from top) + (rank from bottom)  $- 1$ .

**Step 1 — Substitute the ranks:**

$$\text{Total} = 25 + 25 - 1$$

**Step 2 — Compute:**

$$= 49$$

The “ $-1$ ” avoids counting the student twice.

**Why other options are wrong:**

- Option C (50): forgets to subtract 1.



- Option B (48): subtracts 2 instead of 1.
- Option D (51): adds an extra instead of subtracting.

**Final Answer:**  $49 \Rightarrow$

**Answer: (A)** [Go Back to Q29](#)

**Q30.**

### Solution

**Concept — Number pattern:** Each number maps to  $2n - 1$  (one less than twice the number).

**Step 1 — Verify the rule:**

$$2 \rightarrow 2(2) - 1 = 3, \quad 3 \rightarrow 2(3) - 1 = 5, \quad 4 \rightarrow 2(4) - 1 = 7$$

So the rule is  $n \rightarrow 2n - 1$ .

**Step 2 — Apply to 10:**

$$10 \rightarrow 2(10) - 1 = 20 - 1 = 19$$

**Why other options are wrong:**

- Option A (20): this is  $2n$ , missing the  $-1$ .
- Option B (21): this is  $2n + 1$ .
- Option D (17): this is  $2n - 3$ .

**Final Answer:**  $19 \Rightarrow$

**Answer: (C)** [Go Back to Q30](#)



## Answer Key

Q	Ans	Q	Ans	Q	Ans	Q	Ans	Q	Ans
1	C	2	D	3	B	4	D	5	B
6	A	7	C	8	A	9	C	10	B
11	D	12	D	13	A	14	D	15	B
16	C	17	C	18	A	19	D	20	A
21	B	22	C	23	A	24	B	25	A
26	D	27	C	28	B	29	A	30	C

