GMAT Verbal Sample Question Paper 3 with Solutions

Time Allowed : 3 Hours	**Maximum Marks :** 100

General Instructions

Read the following instructions very carefully and strictly follow them:

1. The GMAT exam is 2 hours and 15 minutes long (with one optional 10-minute break) and consists of 64 questions in total.
2. The GMAT exam is comprised of three sections:
3. Quantitative Reasoning: 21 questions, 45 minutes
4. Verbal Reasoning: 23 questions, 45 minutes
5. Data Insights: 20 questions, 45 minutes
6. You can answer the three sections in any order. As you move through a section, you can bookmark questions that you would like to review later.
7. When you have answered all questions in a section, you will proceed to the Question Review & Edit screen for that section.
8. If there is no time remaining in the section, you will NOT proceed to the Question Review & Edit screen and you will automatically be moved to your optional break screen or the next section (if you have already taken your optional break).
9. Each Question Review & Edit screen includes a numbered list of the questions in that section and indicates the questions you bookmarked.
10. Clicking a question number will take you to that specific question. You can review as many questions as you would like and can edit up to three (3) answers.

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66. Vasquez-Morrell Assurance specializes in insuring manufacturers. Whenever a policyholder makes a claim, a claims adjuster determines the amount that Vasquez-Morrell is obligated to pay. Vasquez-Morrell is cutting its staff of claims adjusters by 15 percent. To ensure that the company's ability to handle claims promptly is affected as little as possible by the staff cuts, consultants recommend that Vasquez-Morrell lay off those adjusters who now take longest, on average, to complete work on claims assigned to them.
Which of the following, if true, most seriously calls into question the consultants' criterion for selecting the staff to be laid off?

(A) If the time that Vasquez-Morrell takes to settle claims increases significantly, it could lose business to other insurers.
(B) Supervisors at Vasquez-Morrell tend to assign the most complex claims to the most capable adjusters.

(C) At Vasquez-Morrell, no insurance payments are made until a claims adjuster has reached a final determination on the claim.
(D) There are no positions at Vasquez-Morrell to which staff currently employed as claims adjusters could be reassigned.
(E) The premiums that Vasquez-Morrell currently charges are no higher than those charged for similar coverage by competitors.

Correct Answer: (B) Supervisors at Vasquez-Morrell tend to assign the most complex claims to the most capable adjusters.

Solution:

Step 1: Understanding the Argument
The core of the argument is a recommendation from consultants on how to implement staff cuts among claims adjusters.
Premise: Vasquez-Morrell needs to lay off 15% of its claims adjusters.
Goal: To minimize the negative impact on the company's ability to handle claims promptly.
Consultant's Criterion: Lay off the adjusters who take the longest, on average, to complete their claims.
The underlying assumption is that the time taken to complete a claim is a direct and accurate measure of an adjuster's efficiency or performance. An adjuster who takes longer is assumed to be less productive.

Step 2: Analyzing the Task
We need to find an option that weakens or "calls into question" this criterion. This means finding a reason why "taking the longest" is not a good indicator of being a less valuable employee. We are looking for an alternative explanation for why an adjuster might take a long time to process claims, an explanation that suggests they are actually a valuable asset.

Step 3: Evaluating the Options
(A) This option discusses the negative consequences of claims taking longer to settle. This actually strengthens the consultants' goal of maintaining promptness, but it does not question the method (the criterion) for selecting who to lay off. It reinforces the importance of the problem, not challenges the proposed solution's logic.
(B) This option provides a critical piece of information. If supervisors assign the most complex claims to the most capable adjusters, it follows that these capable adjusters will naturally take longer on average to complete their work. Complex claims inherently require more time, investigation, and analysis. Therefore, following the consultants' advice would mean laying off the most skilled and capable adjusters. This directly contradicts the goal of maintaining the company's ability to handle claims effectively and thus seriously calls the criterion into question.
(C) This option describes a standard operational procedure for all claims. It applies equally to all adjusters, whether they are fast or slow, and does not differentiate between them. Therefore, it has no bearing on the validity of the criterion for layoffs.
(D) This option deals with the possibility of reassigning employees, which is irrelevant to the question of who should be laid off in the first place. It talks about what happens after the selection is made, not the validity of the selection criterion itself.
(E) This option compares Vasquez-Morrell's premiums with its competitors. This is a detail

about the company's market position and pricing strategy, which is unrelated to its internal process of evaluating and laying off claims adjusters.

Step 4: Final Answer
Option (B) is the correct answer because it exposes a fundamental flaw in the consultants' assumption. It shows that the metric they propose (average time to complete a claim) is likely an indicator of an adjuster's skill and the difficulty of their assignments, not their inefficiency. Laying off employees based on this flawed metric would be detrimental to the company.

Quick Tip

In critical reasoning questions that ask you to weaken an argument or a plan, look for an answer choice that attacks the core assumption. Here, the assumption is that 'time taken = inefficiency'. The correct answer provides an alternative reason for the long time taken ('complexity of work = high skill').

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67. Prolonged spells of hot, dry weather at the end of the grape-growing season typically reduce a vineyard's yield, because the grapes stay relatively small. In years with such weather, wine producers can make only a relatively small quantity of wine from a given area of vineyards. Nonetheless, in regions where wine producers generally grow their own grapes, analysts typically expect a long, hot, dry spell late in the growing season to result in increased revenues for local wine producers.
Which of the following, if true, does most to justify the analysts' expectation?

(A) The lower a vineyard's yield, the less labor is required to harvest the grapes.
(B) Long, hot, dry spells at the beginning of the grape-growing season are rare, but they can have a devastating effect on a vineyard's yield.
(C) Grapes grown for wine production are typically made into wine at or near the vineyard in which they were grown.
(D) When hot, dry spells are followed by heavy rains, the rains frequently destroy grape crops.
(E) Grapes that have matured in hot, dry weather make significantly better wine than ordinary grapes.

Correct Answer: (E) Grapes that have matured in hot, dry weather make significantly better wine than ordinary grapes.

Solution:

Step 1: Understanding the Paradox
The question presents a situation that seems contradictory. This is often called a paradox.
Fact 1: Hot, dry weather leads to smaller grapes, which reduces the vineyard's yield (quantity of wine produced).
Fact 2: Analysts expect this same weather to lead to increased revenues for wine producers.
The paradox is: How can a lower quantity of product lead to higher total revenue?

Step 2: Key Formula or Approach
The formula for revenue is fundamental to solving this problem:

$$\text{Revenue} = \text{Price} \times \text{Quantity}$$

The paradox states that Quantity decreases, but Revenue increases. For this to be true, the Price of the wine must increase significantly to more than compensate for the decrease in quantity. The task is to find an option that explains why the price would increase so dramatically.

Step 3: Evaluating the Options
(A) This option discusses labor costs. A reduction in costs affects profit (Profit = Revenue − Costs), but it does not explain why revenue itself would increase. The analysts' expectation is specifically about revenue, not profit.
(B) This option discusses weather at the beginning of the season. The premise of the argument is about weather at the end of the season. Therefore, this option is out of scope and irrelevant.
(C) This option explains where the wine is made. While this is an interesting fact about the wine industry, it doesn't provide a reason for the expected increase in revenue. It doesn't connect the weather to either price or quantity in a way that resolves the paradox.
(D) This option describes a situation (hot, dry spells followed by rain) that would destroy crops. This would lead to even lower yields and likely lower, not higher, revenue. This deepens the mystery rather than resolving it.
(E) This option provides the missing link. If the grapes that mature in hot, dry weather produce significantly better (i.e., higher quality) wine, this higher quality wine can be sold at a much higher price. Consumers are often willing to pay a premium for exceptional quality. This large increase in price can offset the decrease in quantity, leading to an overall increase in revenue. This perfectly resolves the paradox.

Step 4: Final Answer
Option (E) is the correct answer. It justifies the analysts' expectation by introducing the factor of quality, which directly impacts the price of wine. A substantial increase in price due to higher quality explains how revenues can increase despite a lower production quantity.

Quick Tip

When you encounter a paradox question, especially in a business or economics context, think about the basic formulas involved (like Revenue = Price x Quantity). The resolution often lies in a factor that affects one of the variables in an unexpected way. Here, weather affects not just quantity (negatively) but also quality and therefore price (positively).

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68. In the past, most children who went sledding in the winter snow in Verland used wooden sleds with runners and steering bars. Ten years ago, smooth plastic sleds became popular; they go faster than wooden sleds but are harder to steer and slow. The concern that plastic sleds are more dangerous is clearly borne out by the fact that the number of children injured while sledding was much higher last winter than it was 10 years ago.
Which of the following, if true in Verland, most seriously undermines the force of the evidence

cited?

(A) A few children still use traditional wooden sleds.
(B) Very few children wear any kind of protective gear, such as helmets, while sledding.
(C) Plastic sleds can be used in a much wider variety of snow conditions than wooden sleds can.
(D) Most sledding injuries occur when a sled collides with a tree, a rock, or another sled.
(E) Because the traditional wooden sleds can carry more than one rider, an accident involving a wooden sled can result in several children being injured.

Correct Answer: (C) Plastic sleds can be used in a much wider variety of snow conditions than wooden sleds can.

Solution:

Step 1: Understanding the Argument
The argument attempts to establish a causal link between the introduction of plastic sleds and an increase in sledding injuries.
Premise 1: Ten years ago, most children used wooden sleds.
Premise 2: Now, popular plastic sleds are faster and harder to steer.
Evidence: The total number of sledding injuries was much higher last winter than it was 10 years ago.
Conclusion (implied): Plastic sleds are more dangerous and are the cause of the increased injuries.
The argument assumes that the only significant change in sledding over the last 10 years is the type of sled used.

Step 2: Analyzing the Task
We need to find an answer choice that undermines or weakens this conclusion. This involves finding an alternative explanation for the increase in injuries. The argument is based on a correlation (more plastic sleds, more injuries) and assumes causation. To weaken it, we can show that the correlation might be coincidental or that another factor is responsible for the rise in injuries. The argument compares absolute numbers of injuries, not injury rates (e.g., injuries per hour of sledding). This is a common flaw.

Step 3: Evaluating the Options
(A) The fact that some children still use wooden sleds doesn't weaken the argument. The argument is about the overall trend and the impact of the now-popular plastic sleds.
(B) This factor (lack of protective gear) likely applied both 10 years ago and last winter. Since it's a constant condition, it cannot explain the increase in injuries over the 10-year period.
(C) This option provides a strong alternative explanation. If plastic sleds can be used in more varied snow conditions (e.g., in lighter snow where wooden sleds wouldn't work), it means that children can go sledding more often and on more days throughout the winter. An increase in the overall amount of sledding activity would naturally lead to a higher total number of injuries, even if the plastic sleds were not inherently more dangerous per use. This weakens the conclusion that the sleds themselves are the sole cause of the increased injury numbers.
(D) This describes how injuries happen but doesn't differentiate between the two types of sleds

or the two time periods. Collisions are a risk with any type of sled. This doesn't weaken the evidence.
(E) This suggests that wooden sleds could potentially be dangerous in a specific way (injuring multiple children at once). If anything, this slightly weakens the case against plastic sleds, but it doesn't provide a comprehensive alternative explanation for the large increase in the total number of injured children last winter. Option (C) provides a much broader and more powerful alternative cause.

Step 4: Final Answer
Option (C) is the correct answer. It undermines the argument by pointing out a confounding variable: the total amount of time spent sledding. By showing that plastic sleds allow for more overall sledding activity, it provides a plausible reason for the increase in total injuries that is independent of the inherent danger of the sleds themselves.

Quick Tip

Be wary of arguments that rely on raw numbers instead of rates or percentages. An increase in the absolute number of incidents (like injuries) can often be explained by an increase in the underlying activity. Always look for an answer choice that points to such a change in the frequency of the activity.

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69. Metal rings recently excavated from seventh-century settlements in the western part of Mexico were made using the same metallurgical techniques as those used by Ecuadorian artisans before and during that period. These techniques are sufficiently complex to make their independent development in both areas unlikely. Since the people of these two areas were in cultural contact, archaeologists hypothesize that the metallurgical techniques used to make the rings found in Mexico were learned by Mexican artisans from Ecuadorian counterparts.
Which of the following would it be most useful to establish in order to evaluate the archaeologists' hypothesis?

(A) Whether metal objects were traded from Ecuador to western Mexico during the seventh century
(B) Whether travel between western Mexico and Ecuador in the seventh century would have been primarily by land or by sea
(C) Whether artisans from western Mexico could have learned complex metallurgical techniques from their Ecuadorian counterparts without actually leaving western Mexico
(D) Whether metal tools were used in the seventh-century settlements in western Mexico
(E) Whether any of the techniques used in the manufacture of the metal rings found in western Mexico are still practiced among artisans in Ecuador today

Correct Answer: (A) Whether metal objects were traded from Ecuador to western Mexico during the seventh century

Solution:

Step 1: Understanding the Hypothesis
The argument presents a hypothesis about the transmission of technology in the ancient world.
Evidence 1: Identical, complex metallurgical techniques found in 7th-century Mexico and Ecuador.
Evidence 2: Independent invention is unlikely.
Evidence 3: There was cultural contact between the two areas.
Hypothesis: The direction of learning was from Ecuador to Mexico (Ecuadorians taught Mexicans).

Step 2: Analyzing the Task
The question asks what would be most useful to establish to "evaluate" the hypothesis. This means we are looking for a question whose answer (either yes or no) would significantly strengthen or weaken the conclusion that the technology was transferred from Ecuador to Mexico. We need to test the proposed direction of transmission.

Step 3: Evaluating the Options
(A) This question asks about trade of metal objects from Ecuador to Mexico. If the answer is YES, it establishes a concrete mechanism for cultural contact and a plausible pathway for the technology transfer. Mexican artisans could have seen these traded objects, become inspired, and sought to learn the techniques, or even reverse-engineered them. This would strengthen the hypothesis. If the answer is NO, it removes a primary channel for this transfer, making the hypothesis less likely (though not impossible, as people could have traveled without trade). Because the answer directly affects the plausibility of the proposed transfer, this is a very useful question to ask.
(B) The mode of travel (land vs. sea) is a logistical detail. While interesting, knowing the answer would not help evaluate the core of the hypothesis, which is about the transfer of knowledge, not the specific route taken.
(C) This asks if it was possible for Mexican artisans to learn without traveling. If yes, it just means direct tutelage wasn't necessary. If no, it means artisans must have traveled. This is related to the mechanism, much like (A), but it is a more hypothetical question. Option (A) asks about a specific, verifiable historical event (trade), which is a more direct way to test the "cultural contact" premise. Proving trade occurred is stronger evidence for the hypothesis than just establishing that learning from afar was possible.
(D) Whether metal tools were used is irrelevant. The hypothesis is specifically about the techniques used to make metal rings. The presence or absence of other metal objects doesn't help evaluate the origin of this particular technology.
(E) Whether the techniques are still practiced today has no bearing on how they were transmitted in the seventh century. It is historically irrelevant to the hypothesis.

Step 4: Final Answer
Option (A) is the most useful question to ask. Establishing whether finished goods were traded between the two cultures provides direct evidence for a plausible mechanism of knowledge transfer. It helps to substantiate the claim of "cultural contact" in a way that is directly relevant to the specific technology in question, thus allowing for a better evaluation of the hypothesis that the techniques were learned by Mexicans from Ecuadorians.

Quick Tip

In questions that ask you to evaluate a hypothesis, look for the option that tests a key assumption or a potential mechanism of action. The hypothesis here is about knowledge transfer. The best way to evaluate it is to seek evidence of a plausible channel for that transfer, such as trade.

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70. Following several years of declining advertising sales, the Greenville Times reorganized its advertising sales force. Before reorganization, the sales force was organized geographically, with some sales representatives concentrating on city-center businesses and others concentrating on different outlying regions. The reorganization attempted to increase the sales representatives' knowledge of clients' businesses by having each sales representative deal with only one type of industry or of retailing. After the reorganization, revenue from advertising sales increased.
In assessing whether the improvement in advertising sales can properly be attributed to the reorganization, it would be most helpful to find out which of the following?

(A) What proportion of the total revenue of the Greenville Times is generated by advertising sales?
(B) Has the circulation of the Greenville Times increased substantially in the last two years?
(C) Among all the types of industry and retailing that use the Greenville Times as an advertising vehicle, which type accounts for the largest proportion of the newspaper's advertising sales?
(D) Do any clients of the sales representatives of the Greenville Times have a standing order with the Times for a fixed amount of advertising per month?
(E) Among the advertisers in the Greenville Times, are there more types of retail business or more types of industrial business?

Correct Answer: (B) Has the circulation of the Greenville Times increased substantially in the last two years?

Solution:

Step 1: Understanding the Causal Argument
The argument suggests a cause-and-effect relationship.
Cause: Reorganization of the advertising sales force (from geographic to industry-specific).
Effect: Increased revenue from advertising sales.
The implicit conclusion is that the reorganization caused the increase in revenue.

Step 2: Analyzing the Task
The question asks what information would be most helpful in assessing or evaluating this causal claim. This is a classic "evaluate the argument" question type. To do this, we must consider alternative causes. If another factor could have plausibly caused the increase in revenue, then we cannot confidently attribute the success to the reorganization. We are looking for an option that introduces such a potential alternative cause.

Step 3: Evaluating the Options
(A) The proportion of revenue from advertising sales tells us how important this revenue stream

is to the newspaper, but it does not help us determine the cause of the increase in that revenue. Whether advertising is 30% or 70% of total revenue, the question of why it grew remains.
(B) This presents a powerful alternative explanation. The value of a newspaper to an advertiser is directly related to its circulation (the number of people who will see the ad). If the newspaper's circulation has increased substantially, it becomes a more attractive advertising vehicle. This increased demand from advertisers would naturally lead to an increase in advertising revenue, completely independent of how the sales force is organized. If the answer is YES, it weakens the original conclusion. If the answer is NO, it strengthens the conclusion by eliminating a key alternative cause. Therefore, finding out the answer to this question is crucial for assessing the argument.
(C) Knowing which industry is the biggest advertiser is descriptive information about the newspaper's client base. It doesn't explain why the total revenue from all advertisers increased recently.
(D) The existence of standing orders would contribute to a stable baseline of revenue, but it doesn't explain a recent increase in revenue. It's a constant factor, not a variable that changed.
(E) The mix of business types (retail vs. industrial) is, like option (C), descriptive information about the advertiser base. It provides no insight into the cause of the recent growth in sales.

Step 4: Final Answer
Option (B) is the correct answer. To determine if the reorganization was the true cause of the increased revenue, it is essential to rule out other significant factors. A substantial increase in circulation is a major confounding variable that, if true, would offer a compelling alternative explanation for the sales growth.

Quick Tip

For questions evaluating a causal conclusion (X caused Y), always be on the lookout for alternative causes. The best answer choice is often one that asks about a factor that could have also produced the observed effect (Y), thereby challenging the claim that X was the sole cause.

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71. Motorists in a certain country frequently complain that traffic congestion is much worse now than it was 20 years ago. No real measure of how much traffic congestion there was 20 years ago exists, but the motorists' complaints are almost certainly unwarranted. The country's highway capacity has tripled in the last twenty years, thanks to a vigorous highway construction program, whereas the number of automobiles registered in the country has increased by only 75 percent.
Which of the following, if true, most seriously weakens the argument?

(A) Most automobile travel is local, and the networks of roads and streets in the country's settled areas have changed little over the last 20 years.
(B) Gasoline prices are high, and miles traveled per car per year have not changed much over the last 20 years.
(C) The country's urban centers have well-developed public transit systems that carry most of

the people who commute into those centers.
(D) The average age of automobiles registered in the country is lower now than it was 20 years ago.
(E) Radio stations have long been broadcasting regular traffic reports that inform motorists about traffic congestion.

Correct Answer: (A) Most automobile travel is local, and the networks of roads and streets in the country's settled areas have changed little over the last 20 years.

Solution:

Step 1: Understanding the Argument
The argument aims to disprove motorists' complaints about increased traffic congestion.
Conclusion: The motorists' complaints are unwarranted.
Evidence: Over the last 20 years, national highway capacity has tripled (increased by 200%), while the number of registered automobiles has only increased by 75%.
Assumption: The argument assumes that the national statistics for highway capacity are a relevant measure of the traffic conditions experienced by the average motorist. It equates "highway capacity" with the capacity of the roads people actually use for their daily travel.

Step 2: Analyzing the Task
We need to find an option that weakens the argument's conclusion. This means we must find a reason why the motorists' complaints might be valid, despite the statistics presented. The best way to do this is to attack the argument's central assumption.

Step 3: Evaluating the Options
(A) This option directly attacks the core assumption. If most travel is local, and the local road networks have not been significantly upgraded, then the massive expansion of national highways is irrelevant to the daily experience of congestion on local streets. It's entirely possible for national highway capacity to triple (e.g., by building new inter-city freeways) while city streets become much more congested due to the 75% increase in cars crowding onto an unchanged local road system. This explains why motorists would perceive congestion as worse, thereby weakening the argument.
(B) If miles traveled per car have not changed, it means the 75% increase in cars translates directly to a 75% increase in total miles traveled. This doesn't weaken the argument; it just clarifies the demand side. The argument's logic still rests on capacity (tripled) far outpacing this demand.
(C) Well-developed public transit would reduce the number of cars on the road, which would alleviate traffic congestion. This would strengthen the author's argument that the complaints are unwarranted, not weaken it.
(D) The average age of automobiles has no bearing on the amount of traffic or congestion on the roads.
(E) The existence of traffic reports simply confirms that congestion is a known issue. It does not provide any information to weaken the argument's specific claim that congestion is not worse than it was 20 years ago.

Step 4: Final Answer
Option (A) is the correct answer because it exposes a flaw in the argument's reasoning by

highlighting the potential mismatch between the evidence (national highway capacity) and the phenomenon being discussed (local traffic congestion).

Quick Tip

In critical reasoning, always be skeptical of arguments that use broad, aggregate statistics (like national highway capacity) to draw conclusions about specific, local experiences (like a daily commute). The correct weakening answer often points out this discrepancy.

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72. The percentage of households with an annual income of more than $40,000 is higher in Merton County than in any other county. However, the percentage of households with an annual income of $60,000 or more is higher in Sommer County.
If the statements above are true, which of the following must also be true?

(A) The percentage of households with an annual income of $80,000 is higher in Sommer County than in Merton County.
(B) Merton County has the second highest percentage of households with an annual income of $60,000 or more.
(C) Some households in Merton County have an annual income between $40,000 and $60,000.
(D) The number of households with an annual income of more than $40,000 is greater in Merton County than in Sommer County.
(E) Average annual household income is higher in Sommer County than in Merton County.

Correct Answer: (C) Some households in Merton County have an annual income between $40,000 and $60,000.

Solution:

Step 1: Understanding the Premises
Let's represent the given information using symbols to make it clearer.
Let P(County, Income Bracket) be the percentage of households in a given county within a certain income bracket.
Premise 1: P(Merton, ¿$40k) ¿ P(Any other county, ¿$40k). This implies P(Merton, ¿$40k) ¿ P(Sommer, ¿$40k).
Premise 2: P(Sommer, ≥$60k) ¿ P(Merton, ≥$60k).

Step 2: Analyzing the Income Brackets
The question involves three income groups:
1. Income greater than $40,000 (¿ $40k).
2. Income greater than or equal to $60,000 (≥ $60k).
3. The bracket between these two, which we can define as incomes greater than $40,000 but less than $60,000 (¿ $40k and ¡ $60k).

The percentage of households in this middle bracket can be calculated as:
P(County, ¿$40k and ¡$60k) = P(County, ¿$40k) - P(County, ≥$60k).

The question asks what must be true. This requires a logically certain conclusion.

Step 3: Detailed Explanation
Let's focus on Merton County. We need to determine if there must be any households in the middle bracket (¿$40k and ¡$60k). This is equivalent to asking if P(Merton, ¿$40k) must be strictly greater than P(Merton, ≥$60k).
Let's assume, for the sake of contradiction, that there are no households in Merton County with incomes between $40,000 and $60,000.
If this were true, then any household with an income over $40,000 must also have an income of $60,000 or more.
This would mean: P(Merton, ¿$40k) = P(Merton, ≥$60k).

Now let's bring in the premises:
From Premise 1, we know: P(Merton, ¿$40k) ¿ P(Sommer, ¿$40k).
If our assumption is true, we can substitute to get: P(Merton, ≥$60k) ¿ P(Sommer, ¿$40k).
We also know that for any county, the percentage of households with income ¿$40k must be greater than or equal to the percentage with income ≥$60k. So, P(Sommer, ¿$40k) ≥ P(Sommer, ≥$60k).
Combining these inequalities, we get: P(Merton, ≥$60k) ¿ P(Sommer, ¿$40k) ≥ P(Sommer, ≥$60k).
This leads to the conclusion that P(Merton, ≥$60k) ¿ P(Sommer, ≥$60k).

However, this directly contradicts Premise 2, which states that P(Sommer, ≥$60k) ¿ P(Merton, ≥$60k).
Since our initial assumption led to a contradiction, the assumption must be false. Therefore, there must be some households in Merton County with an income between $40,000 and $60,000.

Step 4: Evaluating the Options
(A) We are given no information about incomes above $60,000, so we cannot make any conclusions about the $80,000 bracket.
(B) We know Sommer has a higher percentage than Merton in the ≥$60k bracket, but we don't know how either county ranks against all other counties. Merton could be last.
(C) As proven above, this statement must be true. The premises would be logically inconsistent otherwise.
(D) The premises are about percentages, not absolute numbers. We cannot conclude anything about the number of households without knowing the total population of each county.
(E) We cannot determine the average income. A high percentage of people in one bracket does not guarantee a higher overall average income.

Quick Tip

For "Must Be True" questions involving percentages and overlapping categories, try to use proof by contradiction. Assume the opposite of an answer choice is true and see if it logically conflicts with the given premises. If it does, the original answer choice must be correct.

73. Tiger beetles are such fast runners that they can capture virtually any nonflying insect. However, when running toward an insect, a tiger beetle will intermittently stop and then, a moment later, resume its attack. Perhaps the beetles cannot maintain their pace and must pause for a moment's rest; but an alternative hypothesis is that while running, tiger beetles are unable to adequately process the resulting rapidly changing visual information and so quickly go blind and stop.
Which of the following, if discovered in experiments using artificially moved prey insects, would support one of the two hypotheses and undermine the other?

(A) When a prey insect is moved directly toward a beetle that has been chasing it, the beetle immediately stops and runs away without its usual intermittent stopping.
(B) In pursuing a swerving insect, a beetle alters its course while running and its pauses become more frequent as the chase progresses.
(C) In pursuing a moving insect, a beetle usually responds immediately to changes in the insect's direction, and it pauses equally frequently whether the chase is up or down an incline.
(D) If, when a beetle pauses, it has not gained on the insect it is pursuing, the beetle generally ends its pursuit.
(E) The faster a beetle pursues an insect fleeing directly away from it, the more frequently the beetle stops.

Correct Answer: (E) The faster a beetle pursues an insect fleeing directly away from it, the more frequently the beetle stops.

Solution:

Step 1: Understanding the Hypotheses
The question asks us to find a piece of evidence that helps decide between two competing explanations for why tiger beetles stop intermittently during a chase.
Hypothesis 1 (H1 - The Rest Hypothesis): The stops are necessary for physical recovery. The beetle gets tired from running at a high pace. This is an issue of physical stamina.
Hypothesis 2 (H2 - The Blindness Hypothesis): The stops are necessary for visual processing. The beetle's brain cannot process the rapidly changing visual input while running so fast, effectively making it "blind." It must stop to reacquire the target's location. This is an issue of information processing limits.

Step 2: Analyzing the Task
We need an experimental result that is predicted by one hypothesis but contradicted by the other. This will allow us to support one while undermining the other. We must evaluate each option against both hypotheses.

Step 3: Evaluating the Options
(A) The beetle running away is a new behavior not explained by either hypothesis directly. H1 (rest) offers no explanation for this. H2 (blindness) could be stretched to say the beetle stops, gets confused by the unexpected input, and flees. However, it doesn't clearly support one over the other in the context of the intermittent stopping pattern.
(B) A swerving insect is both more physically demanding (requires more changes in direction

and acceleration) and visually complex. Therefore, more frequent pauses would be predicted by both hypotheses, so this result would not help differentiate between them.
(C) This option contains two claims. "Responds immediately to changes in the insect's direction" seems to undermine H2, as it suggests the beetle can process information while running. "Pauses equally frequently whether the chase is up or down an incline" undermines H1, as running uphill should be more tiring and require more rest. This option seems to weaken both hypotheses rather than supporting one and undermining the other.
(D) This describes a strategic decision to abandon a chase. It explains when a beetle might give up entirely, but not why it pauses intermittently during a successful chase. It's irrelevant to both hypotheses.
(E) This option states a direct correlation: the faster the beetle runs, the more often it stops. Let's analyze this from the perspective of both hypotheses.
Support for H2 (Blindness): This provides strong support. The faster the beetle runs, the more rapid the change in visual information. This would cause the beetle's visual processing to hit its limit more quickly and more often, thus requiring more frequent stops to "reset" and reacquire the target. The relationship is causal and direct.
Undermining H1 (Rest): This is more subtle. While it's true that running faster is more tiring, this finding undermines the rest hypothesis from a behavioral strategy standpoint. An animal managing its physical exhaustion would likely adopt a sustainable pace. The behavior described—running so fast that it forces more frequent recovery stops—is an inefficient way to manage stamina. It suggests the stops are not for recovery but are an unavoidable side effect of running fast. The speed itself causes the problem (visual blur), which fits H2 perfectly. The stops are a solution to the problem caused by speed, not a recovery from the exertion of speed. Therefore, this finding fits the visual processing limit model much better than the physical fatigue model.

Step 4: Final Answer
Option (E) provides the clearest experimental result that supports the "blindness" hypothesis while simultaneously undermining the "rest" hypothesis. The direct link between speed and stop frequency is best explained as a recurring need to process information that becomes overwhelming at high speeds.

Quick Tip

When asked to evaluate competing hypotheses, look for a piece of evidence that isolates a variable. While speed impacts both fatigue and visual processing, the pattern described (faster speed forcing more stops) is better explained as hitting a processing bottleneck than as a strategy for managing physical energy.

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74. Guillemots are birds of Arctic regions. They feed on fish that gather beneath thin sheets of floating ice, and they nest on nearby land. Guillemots need 80 consecutive snow-free days in a year to raise their chicks, so until average temperatures in the Arctic began to rise recently, the guillemots' range was limited to the southernmost Arctic coast. Therefore, if the warming continues, the guillemots' range will probably be enlarged by being extended northward along

the coast.
Which of the following, if true, most seriously weakens the argument?

(A) Even if the warming trend continues, there will still be years in which guillemot chicks are killed by an unusually early snow.
(B) If the Arctic warming continues, guillemots' current predators are likely to succeed in extending their own range farther north.
(C) Guillemots nest in coastal areas, where temperatures are generally higher than in inland areas.
(D) If the Arctic warming continues, much of the thin ice in the southern Arctic will disappear.
(E) The fish that guillemots eat are currently preyed on by a wider variety of predators in the southernmost Arctic regions than they are farther north.

Correct Answer: (D) If the Arctic warming continues, much of the thin ice in the southern Arctic will disappear.

Solution:

Step 1: Understanding the Argument
The argument predicts that global warming will allow guillemots to expand their habitat northward.
Premises:

- Guillemots need 80 consecutive snow-free days for breeding.
- This has historically limited them to the southern Arctic.
- Arctic warming is increasing the number of snow-free days further north.

Conclusion: The guillemots' range will extend northward.
Assumption: The argument assumes that the only critical factor currently limiting the guillemots' range is the number of snow-free days, and that all other necessary conditions for their survival (especially their food source) will become available in the newly warmed northern regions.

Step 2: Analyzing the Task
To weaken the argument, we need to find a statement that shows that even with more snow-free days in the north, the guillemots will be unable to expand their range. This usually involves identifying another necessary condition for survival that will be negatively affected by the warming trend.

Step 3: Evaluating the Options
(A) Occasional bad years with early snow do not refute a long-term trend of range expansion. The argument is about the probable change in the overall habitat range, not about guaranteed success every single year.
(B) The presence of predators in the new northern range would pose a challenge, but it does not automatically mean that range expansion is impossible. The guillemots already face predators in their current range.
(C) This statement describes where guillemots nest, which is consistent with the argument's

conclusion that their range will extend "northward along the coast." It doesn't weaken the argument.
(D) This option attacks a crucial, unstated condition for the guillemots' survival. The text explicitly states that they "feed on fish that gather beneath thin sheets of floating ice." This ice is essential to their feeding strategy. If Arctic warming causes this ice to disappear, their food source will be eliminated. The disappearance of their food source would make the region uninhabitable, regardless of how many snow-free days there are for nesting. This directly contradicts the idea that the area will become a larger, more viable habitat for them.
(E) This suggests that moving north might actually be beneficial by reducing the variety of predators. This would strengthen, not weaken, the argument for northward expansion.

Step 4: Final Answer
Option (D) is the correct answer because it points out a devastating consequence of the warming trend that the argument overlooks. The same warming that provides more snow-free nesting days also destroys the birds' feeding grounds, making the expansion of their range impossible.

Quick Tip

When an argument predicts a future outcome based on a single changing factor, the strongest way to weaken it is to show that the same change also has a negative effect on another, equally critical factor that the argument has ignored.

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75. Some batches of polio vaccine used around 1960 were contaminated with SV40, a virus that in monkeys causes various cancers. Some researchers now claim that this contamination caused some cases of a certain cancer in humans, mesothelioma. This claim is not undercut by the fact that a very careful survey made in the 1960s of people who had received the contaminated vaccine found no elevated incidence of any cancer, since _____

(A) most cases of mesothelioma are caused by exposure to asbestos
(B) in some countries, there was no contamination of the vaccine
(D) mesotheliomas take several decades to develop
(E) mesothelioma was somewhat less common in 1960 than it is now

Correct Answer: (D) mesotheliomas take several decades to develop

Solution:

Step 1: Understanding the Apparent Contradiction
We have two seemingly conflicting pieces of information:
Claim: A contaminated vaccine from around 1960 caused a specific cancer (mesothelioma).
Evidence: A survey in the 1960s of people who got the vaccine found no increase in cancer.
The task is to find a reason why the 1960s survey evidence does not disprove the researchers' claim. We need to explain why the survey might have missed the effect that the researchers are now claiming to have found.

Step 2: Analyzing the Task
The core of the issue is timing. The vaccine was given around 1960, and the survey was also conducted in the 1960s. The researchers are making their claim "now" (at a much later date). To reconcile the two, we need a reason why an effect caused in 1960 would not be observable until much later.

Step 3: Evaluating the Options
(A) The fact that asbestos is the primary cause of mesothelioma does not mean the vaccine cannot be a secondary cause. However, it doesn't explain why the 1960s survey of the vaccinated group showed no elevated incidence compared to the general population at that time.
(B) The situation in other countries is irrelevant to the survey of people who specifically received the contaminated vaccine.
(C) The fact that SV40 causes cancer in lab animals would tend to support the researchers' claim, but it does nothing to explain the negative result of the 1960s human survey.
(D) This option provides a perfect explanation for the discrepancy. If mesothelioma has a long latency period and takes several decades to develop, then a survey conducted in the 1960s would be far too early to detect it. The cancers caused by the 1960 vaccine would not begin to appear until the 1980s, 1990s, or later. This means the 1960s survey results are completely consistent with the researchers' claim that the vaccine did, in fact, cause cancers that appeared many years later.
(E) The baseline commonness of the disease in 1960 is background information. It doesn't explain why the vaccinated group in particular failed to show an increase in incidence during the survey period.

Step 4: Final Answer
Option (D) is the correct answer because it resolves the apparent contradiction by introducing the concept of a long latency period for the cancer, rendering the early survey incapable of detecting the long-term effect of the vaccine.

Quick Tip

In questions that present a puzzle or a discrepancy between two facts, look for an answer choice that introduces a new piece of information explaining why the two facts are not actually contradictory. Often, this involves a factor of timing, as seen here with the concept of a latency period.

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76. Gortland has long been narrowly self-sufficient in both grain and meat. However, as per capita income in Gortland has risen toward the world average, per capita consumption of meat has also risen toward the world average, and it takes several pounds of grain to produce one pound of meat. Therefore, since per capita income continues to rise, whereas domestic grain production will not increase, Gortland will soon have to import either grain or meat or both. Which of the following is an assumption on which the argument depends?

(A) The total acreage devoted to grain production in Gortland will soon decrease.

(B) Importing either grain or meat will not result in a significantly higher percentage of Gortlanders' incomes being spent on food than is currently the case.
(C) The per capita consumption of meat in Gortland is increasing at roughly the same rate across all income levels.
(D) The per capita income of meat producers in Gortland is rising faster than the per capita income of grain producers.
(E) People in Gortland who increase their consumption of meat will not radically decrease their consumption of grain.

Correct Answer: (E) People in Gortland who increase their consumption of meat will not radically decrease their consumption of grain.

Solution:

Step 1: Understanding the Argument
The argument concludes that Gortland will soon need to import food (grain or meat).
Chain of Reasoning:

1. Rising income leads to rising meat consumption.
2. Producing meat requires a lot of grain as feed.
3. Therefore, as meat consumption rises, the total demand for grain (for animal feed + for human consumption) will also rise.
4. Domestic grain production is static (will not increase).
5. Therefore, total grain demand will soon exceed domestic grain supply.
6. This will create a shortfall that must be met by importing either the final product (meat) or the raw material (grain).

Step 2: Analyzing the Task
We need to find a necessary assumption. An assumption is an unstated premise that must be true for the conclusion to be valid. A good way to test for a necessary assumption is the "Negation Test." If we negate the correct answer choice, the entire argument should fall apart.

Step 3: Evaluating the Options and Applying the Negation Test
(A) The argument only requires that grain production not increase. A decrease is not necessary. Negation: "The total acreage... will NOT soon decrease." The argument still holds.
(B) The argument is about the need to import, not the economic consequences of importing. The conclusion can be true even if importing is very expensive. Negation: "Importing will result in a significantly higher percentage of income being spent on food." This doesn't affect the fact that the import is necessary.
(C) The argument depends on the average per capita consumption of meat increasing. How this increase is distributed among the population is irrelevant to the national total. Negation: "Meat consumption is increasing at very different rates." The argument still holds as long as the average is rising.
(D) The income of producers is irrelevant to the consumption patterns of the nation as a whole. The argument still holds regardless of producer incomes.
(E) This option addresses a potential loophole in the argument. The argument assumes that the

increase in grain needed for animal feed will lead to an overall increase in total grain demand. But what if people who eat more meat also eat less grain directly (e.g., they eat a steak instead of a bowl of pasta)? This choice assumes that this substitution effect is not large enough to cancel out the increased demand for animal feed.
Negation Test: Let's negate option (E). "People in Gortland who increase their consumption of meat WILL radically decrease their consumption of grain." If this is true, then the increase in demand for grain for animal feed could be completely offset, or even outweighed, by the sharp decrease in demand for grain for direct human consumption. If the total net demand for grain does not increase, then Gortland's static production might remain sufficient, and the conclusion that they must import would no longer be valid. Since negating this statement breaks the argument, it is a necessary assumption.

Step 4: Final Answer
Option (E) is the correct answer. It is a necessary assumption because it closes the logical gap by ensuring that the shift in diet towards more meat results in a net increase in the country's total grain requirements.

Quick Tip

The Negation Test is one of the most powerful tools for "Assumption" questions. A necessary assumption is a statement that the author must believe is true to draw their conclusion. If you logically reverse it (negate it) and the argument no longer makes sense, you've found the correct answer.

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77. The Hazelton coal-processing plant is a major employer in the Hazelton area, but national environmental regulations will force it to close if it continues to use old, polluting processing methods. However, to update the plant to use newer, cleaner methods would be so expensive that the plant will close unless it receives the tax break it has requested. In order to prevent a major increase in local unemployment, the Hazelton government is considering granting the plant's request.
Which of the following would be most important for the Hazelton government to determine before deciding whether to grant the plant's request?

(A) Whether the company that owns the plant would open a new plant in another area if the present plant were closed
(B) Whether the plant would employ far fewer workers when updated than it does now
(C) Whether the level of pollutants presently being emitted by the plant is high enough to constitute a health hazard for local residents
(D) Whether the majority of the coal processed by the plant is sold outside the Hazelton area
(E) Whether the plant would be able to process more coal when updated than it does now

Correct Answer: (B) Whether the plant would employ far fewer workers when updated than it does now

Solution:

Step 1: Understanding the Government's Goal
The core issue is a decision the Hazelton government must make about a tax break for a coal plant.
The Goal: The government's stated motivation for considering the tax break is "to prevent a major increase in local unemployment."
The Dilemma: Granting the tax break costs the government money, but not granting it could lead to the plant's closure and subsequent job losses. The government wants to ensure that its action (granting the tax break) will actually achieve its goal (preventing unemployment).

Step 2: Analyzing the Task
The question asks what would be "most important" for the government to determine. This means we are looking for a piece of information that would most directly help the government evaluate whether granting the tax break is a sensible way to achieve its primary objective of preserving local jobs.

Step 3: Evaluating the Options
(A) The company's actions in another area are not the primary concern of the Hazelton government. Their focus is on Hazelton's unemployment rate.
(B) This option is directly relevant to the government's goal. The whole point of the tax break is to save the jobs at the plant. However, if the process of updating the plant (which the tax break would enable) involves significant automation or streamlining that would lead to laying off "far fewer workers," then the government's action might not be effective. They might be giving a tax break only to find that a large number of jobs are lost anyway. Knowing the answer to this question is crucial to assessing the effectiveness of the proposed policy.
(C) While the health hazard is a very important issue for the government to consider in general, the text frames the decision specifically in terms of preventing unemployment. The government is already weighing the economic benefit (jobs) against the known environmental problem. This question addresses the severity of the environmental side, but the primary stated goal is economic. The most important question relates directly to that stated goal.
(D) Where the coal is sold is a matter of the plant's business model and has no direct bearing on the number of local people it employs.
(E) The plant's processing capacity after the update relates to its potential productivity or profitability, not directly to the number of jobs it will provide. While a more productive plant might be more stable in the long run, the immediate impact on employment numbers is the key issue here.

Step 4: Final Answer
Option (B) is the correct answer. Since the government's entire rationale for the tax break is to prevent unemployment, it is essential for them to determine if the plan will actually save a significant number of jobs. If the updated plant would employ far fewer people, the tax break would be a poor investment towards their stated goal.

Quick Tip

When a question asks what is "most important" for a decision-maker to know, focus on their stated goal. The most important piece of information will be the one that most directly confirms or denies whether their proposed action will achieve that specific goal.

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78. A physically active lifestyle has been shown to help increase longevity. In the Wistar region of Bellaria, the average age at death is considerably higher than in any other part of the country. Wistar is the only mountainous part of Bellaria. A mountainous terrain makes even such basic activities as walking relatively strenuous; it essentially imposes a physically active lifestyle on people. Clearly, this circumstance explains the long lives of people in Wistar.
Which of the following, if true, most seriously weakens the argument?

(A) In Bellaria all medical expenses are paid by the government, so that personal income does not affect the quality of health care a person receives.
(B) The Wistar region is one of Bellaria's least populated regions.
(C) Many people who live in the Wistar region have moved there in middle age or upon retirement.
(D) The many opportunities for hiking, skiing, and other outdoor activities that Wistar's mountains offer make it a favorite destination for vacationing Bellarians.
(E) Per capita spending on recreational activities is no higher in Wistar than it is in other regions of Bellaria.

Correct Answer: (C) Many people who live in the Wistar region have moved there in middle age or upon retirement.

Solution:

Step 1: Understanding the Causal Argument
The argument attempts to explain the high longevity in the Wistar region.
Observation: People in Wistar live longer (have a higher average age at death).
Proposed Cause: Wistar is mountainous, which forces residents into a physically active lifestyle, and physical activity is known to increase longevity.
Conclusion: The mountainous terrain is the reason for the long lives of Wistar residents.
The argument assumes that the population of Wistar is comparable to the populations in other regions in all other respects relevant to longevity.

Step 2: Analyzing the Task
We need to weaken this causal claim. The most effective way to weaken a causal argument is to provide a plausible alternative cause for the observed effect. In this case, we need an alternative reason why the average age at death in Wistar might be so high.

Step 3: Evaluating the Options
(A) This statement suggests that healthcare quality is uniform across the country. This would actually strengthen the argument by eliminating differences in healthcare as a possible alternative explanation, making the lifestyle explanation more likely.

(B) The population density (least populated) is not directly linked to longevity and does not provide an alternative cause.
(C) This option provides a strong alternative explanation. The "average age at death" is a statistic. If a region has a large influx of people who are already middle-aged or retired, this will artificially inflate the average age of the population. A population that is older on average will naturally have a higher average age at death, regardless of any local environmental factors. This phenomenon is known as a self-selection bias. People who are already older are moving to Wistar. This, rather than the mountain lifestyle making young people live to an old age, could be the reason for the high average age at death.
(D) The fact that Wistar is a vacation destination for other Bellarians is irrelevant to the longevity of the permanent residents who live there.
(E) Spending on recreation does not necessarily correlate with the level of basic physical activity (like walking) or with longevity. This information does not offer an alternative cause.

Step 4: Final Answer
Option (C) is the correct answer because it introduces a confounding variable (the migration of older people into the region) that provides a compelling alternative explanation for the statistical observation, thereby weakening the original causal claim.

Quick Tip

Be critical of arguments that draw conclusions from statistical averages. Ask yourself what could be skewing the data. In this case, the demographic makeup of the population is a powerful confounding factor. An alternative cause is a classic way to weaken a causal argument.

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79. Cheever College offers several online courses via remote computer connection, in addition to traditional classroom-based courses. A study of student performance at Cheever found that, overall, the average student grade for online courses matched that for classroom-based courses. In this calculation of the average grade, course withdrawals were weighted as equivalent to a course failure, and the rate of withdrawal was much lower for students enrolled in classroom-based courses than for students enrolled in online courses.
If the statements above are true, which of the following must also be true of Cheever College?

(A) Among students who did not withdraw, students enrolled in online courses got higher grades, on average, than students enrolled in classroom-based courses.
(B) The number of students enrolled per course at the start of the school term is much higher, on average, for the online courses than for the classroom-based courses.
(C) There are no students who take both an online and a classroom-based course in the same school term.
(D) Among Cheever College students with the best grades, a significant majority take online, rather than classroom-based, courses.
(E) Courses offered online tend to deal with subject matter that is less challenging than that of classroom-based courses.

Correct Answer: (A) Among students who did not withdraw, students enrolled in online courses got higher grades, on average, than students enrolled in classroom-based courses.

Solution:

Step 1: Understanding the Premises
This is a logical deduction question based on statistics. Let's break down the information given:
Premise 1: Average Grade (Online) = Average Grade (Classroom).
Premise 2: The calculation of these averages includes withdrawals, which are counted as failures (let's say a grade of 'F' or 0).
Premise 3: Withdrawal Rate (Online) ¿ Withdrawal Rate (Classroom). This means a higher percentage of the "grades" in the online average are failures due to withdrawal.

Step 2: Key Formula or Approach
Let A_O be the average grade for online students who completed the course, and W_O be the withdrawal rate (as a percentage).
Let A_C be the average grade for classroom students who completed the course, and W_C be the withdrawal rate.
The overall average grade is a weighted average of the grades of those who completed and those who withdrew (who get a grade of 0).
Overall Avg (Online) $= A_O \times (1 - W_O) + 0 \times W_O = A_O \times (1 - W_O)$.
Overall Avg (Classroom) $= A_C \times (1 - W_C) + 0 \times W_C = A_C \times (1 - W_C)$.

From Premise 1, we know:

$$A_O \times (1 - W_O) = A_C \times (1 - W_C)$$

From Premise 3, we know:

$$W_O > W_C$$

This implies that:

$$(1 - W_O) < (1 - W_C)$$

Step 3: Detailed Explanation
We have the equation $A_O \times (1 - W_O) = A_C \times (1 - W_C)$.
We are trying to compare A_O and A_C, which are the average grades for the students who did not withdraw.
Let's rearrange the equation to solve for the ratio of A_O to A_C:

$$\frac{A_O}{A_C} = \frac{1 - W_C}{1 - W_O}$$

Since we know that $W_O > W_C$, the denominator $(1 - W_O)$ is smaller than the numerator $(1 - W_C)$.
When the numerator of a fraction is larger than the denominator (and both are positive), the value of the fraction is greater than 1.
Therefore, $\frac{A_O}{A_C} > 1$, which means $A_O > A_C$.
This translates to: The average grade for online students who completed the course was higher

than the average grade for classroom students who completed the course.

Step 4: Evaluating the Options
(A) This statement matches our logical deduction perfectly.
(B) We have no information about the absolute number of students, only about grades and withdrawal rates (percentages).
(C) The passage does not give any information to support this absolute claim.
(D) We only know about averages, not about the distribution of grades or the performance of the very top students.
(E) The passage gives no information about the difficulty of the subject matter. The difference in grades could be due to student motivation, teaching methods, etc. This is a possible explanation, but it is not something that must be true.

Quick Tip

For questions involving averages and percentages, it's often helpful to think of a simple numerical example. Suppose there are 100 students in each group. Classroom: 5 withdraw (5%). Online: 20 withdraw (20%). Let the overall average grade for both be 70. For Classroom: Avg Grade = (Avg of 95 finishers 95 + Avg of 5 withdrawers 5)/100. $70 = (\mathrm{A}_C 95 + 05)/100 - > A_C = 7000/95 \approx 73.7. For Online : AvgGrade = (Avg of 80 finishers 80 + Avg of 20 withdrawers 20)/100. 70 = (A_O 80 + 020)/100 - > A_O = 7000/80 = 87.5. The example shows that A_O(87.5) > A_C(73.7)$.

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80. For years the beautiful Renaissance buildings in Palitito have been damaged by exhaust from the many tour buses that come to the city. There has been little parking space, so most buses have idled at the curb during each stop on their tour, and idling produces as much exhaust as driving. The city has now provided parking that accommodates a third of the tour buses, so damage to Palitito's buildings from the buses' exhaust will diminish significantly.
Which of the following, if true, most strongly supports the argument?

(A) The exhaust from Palitito's few automobiles is not a significant threat to Palitito's buildings.
(B) Palitito's Renaissance buildings are not threatened by pollution other than engine exhaust.
(C) Tour buses typically spend less than one-quarter of the time they are in Palitito transporting passengers from one site to another.
(D) More tourists come to Palitito by tour bus than by any other single means of transportation.
(E) Some of the tour buses that are unable to find parking drive around Palitito while their passengers are visiting a site.

Correct Answer: (C) Tour buses typically spend less than one-quarter of the time they are in Palitito transporting passengers from one site to another.

Solution:

Step 1: Understanding the Argument
The argument presents a plan and predicts its success.

Problem: Tour bus exhaust damages buildings. A major source of this exhaust is buses idling at the curb.
Plan: Provide new parking for one-third of the tour buses.
Conclusion: Damage from bus exhaust will diminish significantly.
Assumption: The argument assumes that providing parking for one-third of the buses will lead to a significant reduction in total idling time for the entire fleet of buses.

Step 2: Analyzing the Task
We need to find an option that strengthens the conclusion. A good strengthener will often bolster a key assumption or provide additional evidence that the plan will be effective. We need to show that idling is indeed the main problem that the new parking will address.

Step 3: Evaluating the Options
(A) This option rules out automobiles as a major source of exhaust damage. By eliminating an alternative cause, it slightly strengthens the focus on buses as the primary problem, thus making a plan to address bus exhaust more likely to be significant. However, it's a weak strengthener.
(B) Similar to (A), this rules out other forms of pollution. It strengthens the focus on engine exhaust, but doesn't specifically strengthen the link between the new parking and the reduction in that exhaust.
(C) This option provides crucial information about the buses' behavior. If buses spend less than 25% of their time driving and, by implication, more than 75% of their time stopped (and previously, idling), it means that idling is the predominant activity. Therefore, a measure that reduces idling for a third of the buses will have a very large impact on the total amount of exhaust produced. This directly and strongly supports the conclusion that the damage will "diminish significantly."
(D) This option establishes that tour buses are a major source of tourists, which in turn implies they are a major source of pollution. This supports the premise that bus exhaust is a problem, but it doesn't strengthen the link between the specific solution (parking) and the outcome (less damage). We already know the exhaust is a problem.
(E) This option weakens the argument. It suggests that buses unable to find parking might create even more exhaust by driving around than they would by idling. This suggests the new parking, which is only for one-third of buses, might not solve the problem and could even make it worse for the other two-thirds.

Step 4: Final Answer
Option (C) is the correct answer because it quantifies the importance of idling. By showing that buses are stationary (and thus potentially idling) for the vast majority of their time in the city, it demonstrates that the new parking, which targets this specific activity, will have a significant effect.

Quick Tip

In questions that ask you to strengthen a plan's predicted outcome, look for the answer choice that confirms the plan will effectively address the most significant part of the problem. Here, the problem is exhaust, and option (C) confirms that the plan targets the main source of that exhaust: idling during long stops.

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81. During the 1980s and 1990s, the annual number of people who visited the Sordellian Mountains increased continually, and many new ski resorts were built. Over the same period, however, the number of visitors to ski resorts who were caught in avalanches decreased, even though there was no reduction in the annual number of avalanches in the Sordellian Mountains. Which of the following, if true in the Sordellian Mountains during the 1980s and 1990s, most helps to explain the decrease?

(A) Avalanches were most likely to happen when a large new snowfall covered an older layer of snow.
(B) Avalanches destroyed at least some buildings in the Sordellian Mountains in every year.
(C) People planning new ski slopes and other resort facilities used increasingly accurate information about which locations are likely to be in the path of avalanches.
(D) The average length of stay for people visiting the Sordellian Mountains increased slightly.
(E) Construction of new ski resorts often led to the clearing of wooded areas that had helped to prevent avalanches.

Correct Answer: (C) People planning new ski slopes and other resort facilities used increasingly accurate information about which locations are likely to be in the path of avalanches.

Solution:

Step 1: Understanding the Paradox
This question presents a paradoxical situation. We have several facts that seem to contradict each other.
Fact 1: The number of visitors increased continually. (More people exposed to risk).
Fact 2: The number of avalanches remained constant. (The level of natural hazard did not decrease).
Unexpected Outcome: The number of visitors caught in avalanches decreased.
The paradox is: With more people and the same number of natural disasters, why did fewer people get caught?

Step 2: Analyzing the Task
We need to find an explanation that resolves this paradox. The explanation must show how the increased number of people could be better protected from the constant number of avalanches. The solution must lie in some form of improved safety, prevention, or avoidance.

Step 3: Evaluating the Options
(A) This describes the conditions under which avalanches occur. It explains the cause of the hazard but does not explain why fewer people were getting caught in them.

(B) This confirms that avalanches are destructive, reinforcing the severity of the problem, but it does not help explain the decrease in human casualties.
(C) This option provides a perfect explanation. If resort planners and builders had better information about where avalanches are likely to occur, they would build the new ski slopes, lifts, and facilities in safer locations, away from avalanche paths. Even as more tourists came to the mountains, they would be skiing and staying in areas that were specifically chosen to be safe. This effective avoidance of the hazard would directly lead to a decrease in the number of people caught in avalanches, despite the increase in visitors.
(D) An increased length of stay would likely increase the exposure of each visitor to potential avalanche risk, which would deepen the paradox rather than resolve it.
(E) This option suggests that construction made the avalanche problem worse by removing natural barriers. This would make the decrease in people getting caught even more mysterious and would strongly contradict the observed outcome.

Step 4: Final Answer
Option (C) is the correct answer. It resolves the paradox by introducing the factor of improved knowledge and planning, which allowed for better risk avoidance. The new infrastructure was built in safer places, effectively separating the growing population of visitors from the constant natural hazard.

Quick Tip

When resolving a paradox where the number of incidents decreases despite an increase in population and constant hazard level, look for an explanation based on improved safety measures, better prediction, or more effective avoidance strategies. The key is separating the people from the danger.

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82. A year ago, Dietz Foods launched a yearlong advertising campaign for its canned tuna. Last year Dietz sold 12 million cans of tuna compared to the 10 million sold during the previous year, an increase directly attributable to new customers brought in by the campaign. Profits from the additional sales, however, were substantially less than the cost of the advertising campaign. Clearly, therefore, the campaign did nothing to further Dietz's economic interests.
Which of the following, if true, most seriously weakens the argument?

(A) Sales of canned tuna account for a relatively small percentage of Dietz Foods' profits.
(B) Most of the people who bought Dietz's canned tuna for the first time as a result of the campaign were already loyal customers of other Dietz products.
(C) A less expensive advertising campaign would have brought in significantly fewer new customers for Dietz's canned tuna than did the campaign Dietz Foods launched last year.
(D) Dietz made money on sales of canned tuna last year.
(E) In each of the past five years, there was a steep, industry-wide decline in sales of canned tuna.

Correct Answer: (E) In each of the past five years, there was a steep, industry-wide decline in sales of canned tuna.

Solution:

Step 1: Understanding the Argument
The argument evaluates the success of an advertising campaign based on a narrow, short-term financial analysis.
Premise 1: A campaign for tuna cost $X.
Premise 2: The campaign generated 2 million additional sales.
Premise 3: The profit from these 2 million sales was substantially less than $X.
Conclusion: The campaign did nothing to further Dietz's economic interests.
Assumption: The argument assumes that the only economic benefit of the campaign is the immediate profit from the additional sales generated in that one year. It ignores any other potential benefits, such as long-term customer loyalty, brand image, or impact on sales in a declining market.

Step 2: Analyzing the Task
We need to weaken the conclusion. This means we need to find a reason why the campaign did further Dietz's economic interests, even though the immediate profit did not cover the campaign's cost. We are looking for an overlooked economic benefit.

Step 3: Evaluating the Options
(A) The proportion of profit from tuna is irrelevant. The argument is about whether this specific campaign was a good investment for the company's overall economic interests, regardless of how big a part of the business tuna is.
(B) This would weaken the argument, but not as strongly as other options. If the new tuna customers were already buying other Dietz products, the campaign might be seen as strengthening brand loyalty across the board. However, it's also possible these customers simply shifted their spending from one Dietz product to another, yielding no net gain for the company. The effect is ambiguous.
(C) Comparing the campaign to a hypothetical, less effective one doesn't prove that the actual campaign was economically beneficial. It just suggests it was better than a cheaper alternative.
(D) The fact that Dietz "made money" (i.e., had a positive profit margin) on tuna sales is already implied by the premise that there were "profits from the additional sales." This doesn't weaken the core claim that these profits were too small to justify the campaign's cost.
(E) This option provides a crucial context that the argument ignores. If the entire industry is in a steep decline, then simply maintaining sales would be a success. Dietz didn't just maintain sales; they increased them by 20% (from 10M to 12M cans). Without the campaign, it is highly likely that Dietz's sales would have followed the industry trend and declined sharply. By running the campaign, Dietz not only avoided a significant loss in sales but actually achieved growth. This represents a huge economic benefit that goes far beyond the simple profit-on-additional-sales calculation. Therefore, the campaign was very much in Dietz's economic interest.

Step 4: Final Answer
Option (E) is the correct answer because it reframes the outcome of the campaign. Instead of a simple failure to turn a short-term profit, the campaign becomes a major success in reversing a steep market decline, thus protecting and furthering Dietz's economic interests in a significant way.

Quick Tip

When evaluating the success of a business action, always consider the market context. An outcome that looks mediocre in a growing market might be a huge success in a declining market. Arguments that ignore this context are often flawed.
