8.0 Critical Reasoning

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Critical reasoning questions are designed to test the reasoning skills involved in:

- 1. constructing an argument
- 2. evaluating an argument, and
- 3. formulating or evaluating a plan of action.

The materials on which questions are based are drawn from a variety of sources. The GMAT exam does not expect any familiarity with the subject matter of those materials beyond what is generally known.

Critical reasoning questions are based on passages that are typically less than 100 words in length, and—unlike reading comprehension passages—each critical reasoning passage has just one question associated with it. On the exam, you will see only one passage and question at a time.

Answering critical reasoning questions requires no specialized knowledge. You do not need to know the terminology or conventions of formal logic, but you do need to be familiar with such generally known logical terms as "premise," "conclusion," and "assumption." The sample critical reasoning questions in this chapter illustrate the variety of topics the test may cover, the kinds of questions it may ask, and the level of analysis it requires.

8.1 What Is Measured

A set of critical reasoning questions provides one measure of your ability to deal with reasoning.

For the purposes of the GMAT, reasoning can be thought of as any series of statements of which at least one is given as logical support (evidence) for some other statement. Some examples include reasoning for the purpose of justifying belief in a statement, justifying some plan of action, or explaining why a certain phenomenon occurs.

Many of the passages in critical reasoning questions contain or report reasoning. Some passages display no reasoning and simply present information. Every critical reasoning question, however, will require you to engage in reasoning based on the passage. You may, for example, be asked to draw a conclusion from the given information, i.e., to identify among the answer choices the one statement that is logically supported by the information. Or you may be asked to identify the one statement that most plausibly explains why a phenomenon described in the passage occurred, or to evaluate whether a particular plan of action is likely to achieve the intended goal.

Many different skills are involved in the analysis and evaluation of reasoning. The following table lists the major skills that critical reasoning questions measure:

| Question type | Skill | Examples |
|---|---|---|
| Analyzing reasoning structure | Ability to identify premises, conclusions, explanations, plan rationales, or background information in passages that contain reasoning | [in a dialogue] "Ming uses which of the following techniques in responding to Wei?" Which of the following most accurately describes the functions of each boldfaced part of the passage? |
| Drawing conclusions (inference) | Ability to infer a statement (draw a conclusion) from given information | Which of the following is most strongly supported by the information provided? Which of the following follows logically from the information provided? |
| Identifying sufficient or required assumptions | Ability to recognize an assumption that can help to complete a logical gap in a piece of reasoning associated with an explanation or the rationale for a policy or plan | Which of the following is an assumption that Fang's reasoning requires? [or "on which Fang's reasoning depends"] The conclusion follows logically if which of the following is assumed? The plan will fail unless which of the following occurs? |
| Evaluating hypotheses | Ability to identify a hypothesis that most plausibly explains the occurrence of a phenomenon or event | Which of the following, if true, most helps explain the failure to achieve the plan's objective? Which of the following is most likely to contribute to the occurrence of the phenomenon observed? In order to evaluate the force of the archaeologists' evidence, it would be most useful to determine which of the following? |
| Resolving apparent inconsistency | Ability to reconcile two apparently conflicting states of affairs | • Which of the following most helps to resolve the discrepancy between the reported level of rainfall and the occurrence of flooding in City X? |
| Identifying information that strengthens or weakens reasoning | Ability to identify information that either provides additional support or undermines reasoning | Which of the following, if discovered, would cast the most doubt on the engineer's reasoning? Which of the following, if true, would most strengthen the support for the physician's diagnosis? |

| Question type | Skill | Examples |
|--|---|--|
| Recognizing and describing logical flaws | Ability to identify errors in reasoning such as confusing correlation with causation or confusing a sufficient condition with a necessary one | Which of the following, if true, most strongly indicates the existence of a flaw in the reasoning? The reasoning attributed to the executive is most vulnerable to which of the following criticisms? |
| Identifying a point of disagreement | Ability to precisely identify the key issue on which two parties disagree, based on the statements they have made | • Which of the following is the main point of disagreement between Mandeep and Saumya? |
| Finding a solution to a practical problem | Ability to recognize a strategy for solving a practical problem | • Which of the following would most help the polling specialists overcome the difficulty they encountered in surveying a sample of likely voters? |

8.2 Test-Taking Strategies

To answer critical reasoning questions, you must analyze and logically evaluate the passage on which each question is based, and then select the answer choice that most appropriately answers the question. Begin by carefully reading the passage and the question asked about the passage, then reading the five answer choices. If the correct answer is not immediately obvious to you, see whether you can eliminate some of the wrong answers. Reading the passage a second time may help illuminate subtleties not evident on first reading.

1. Decide whether you benefit most from reading the passage or the question first.

Some test-takers may want to read the passage very carefully first and then read the question. But it can be advantageous to read the question first. Doing so can orient you toward noticing the content or structural features of the passage that are relevant to answering the question. Working through the practice questions in this guide should help you get a good feel for the approach that suits you best.

Be careful to respond to the question asked. For example, here are two questions that, in a hurried reading, could easily be confused:

- (a) Which of the following is valued by most citizens of Nation X?
- (b) Which of the following is most valued by the citizens of Nation X?

Something that is valued by most citizens of Nation X may not be the same as what is generally most valued by the citizens of Nation X. For example, the most justified answer to (a) could be "wealth" and the most justified answer to (b) could be "good community relations."

2. Determine whether the passage contains reasoning or merely provides information.

To determine whether the passage contains reasoning, consider whether one or more of the statements are intended to support the truth of any other statement provided, or to justify a plan of action, or to explain some phenomenon. To help determine this, look for certain sorts of words or

phrases, sometimes called "inference indicators," that authors may provide when they are presenting a piece of reasoning. For instance, the word *therefore* is frequently used to indicate a conclusion, and the word *because* is frequently used to indicate a premise or reason. Here are other examples (the list is not exhaustive):

- · Conclusion indicators: consequently, it follows that, so, hence
- Premise indicators: since, as, for, as is shown by, follows from

Some of these words have other uses; for example, *since* can signify time or can signify causation. Also, keep in mind that a passage may contain reasoning even if no such indicators are present. Ask yourself whether any of the statements support the truth of another statement, help explain a phenomenon described in the passage, or help support a plan proposed in the passage.

3. Identify the purpose and structure of any reasoning given in a passage.

A good first step in analyzing passages that contain reasoning is to determine the purpose of the reasoning. Does the reasoning aim to provide logical support for a conclusion? If so, then identifying that conclusion will help. Or perhaps the reasoning aims to explain a phenomenon, i.e., to indicate what has caused the phenomenon to occur. If so, identifying the statement that predicts or hypothesizes the occurrence of the phenomenon will help. A third possibility is that the reasoning provides a rationale for a plan or policy. If so, identifying a statement that indicates the goal of the plan or policy will help.

Once you have identified the purpose of the reasoning, then you can look at the structure of the reasoning (i.e., *how* the author makes the argument). Pay attention to how sentences relate to one another. For example, the passage may begin with a conclusion followed by a premise that supports that conclusion—or the premise may come first. An intermediate conclusion may, in turn, be used as a premise to support a larger, final conclusion. Consider the following:

Among people currently employed, those who wish to retire early will probably not be able to afford to do so. Most people these days are spending almost all their income, and therefore few people are saving enough for early retirement.

In this argument, "Few people are saving enough for early retirement" is an intermediate conclusion, because it is both a conclusion (for which "Most people these days are spending almost all of their income" is a premise) and a premise for the argument's main conclusion ("Among people currently employed, those who wish to retire early will probably not be able to afford to do so").

4. To test reasoning, try to imagine scenarios where the premises are true and the conclusion false.

Many critical reasoning questions will require you to evaluate the soundness of the reasoning presented in a passage. To evaluate reasoning, you do not need to decide whether premises or conclusions are actually true. Determining actual truth is beyond the scope of the test: no test-taker could determine the truth or falsity of every assertion present in critical reasoning passages. Moreover, many critical reasoning passages refer to fictional scenarios. Normally, in evaluating a piece of reasoning, you should try to *imagine* a situation in which the premises would all be true with the conclusion false. If such a situation would be very unlikely to occur, then the reasoning is strong. On the other hand, if such a situation could likely occur, then the reasoning is poor.

This does not mean that considerations of what you know to be true about the real world will not at times be helpful in evaluating reasoning. Consider the following:

Medical procedure A is as effective and cost-efficient as medical procedure B but has fewer unwanted side-effects than B. Therefore, medical procedure A should be preferred over medical procedure B.

In evaluating this reasoning, you can use the obvious fact that, all else being equal, the procedure with fewer unwanted side-effects is preferable.

There are degrees of logical support. A piece of reasoning can be very weak, moderately weak, moderately strong, or even absolutely certain. Even if you are not directly asked to do so, it is good practice to evaluate any reasoning in a passage, including the plausibility of an explanation or the persuasiveness of the rationale for a plan's success. Also, note that reasoning can be strengthened by adding new information that, along with the already given information, increases the likelihood that the conclusion inferred would be true provided that all the supporting information is true. Similarly, reasoning can be weakened by adding information that increases the likelihood of the conclusion being false provided that the supporting information is true.

8.3 Reasoning Concepts to Know for the GMAT Exam

The following is intended to provide some pointers to help you analyze the critical reasoning issues you may encounter on the GMAT exam.

1. Be alert to any unstated assumption on which the reasoning may depend.

A statement that helps fill a "gap" in the information offered to support the conclusion is an unstated assumption. If the reasoning depends on such an assumption and the assumption is highly implausible, the reasoning would be subject to criticism on that basis. Note that assumptions can be of two kinds:

• Necessary assumptions: unstated facts or opinions that must be assumed if the reasoning is to succeed logically. The GMAT question will often contain phrases like an assumption that the argument (reasoning) requires, an assumption on which the argument depends (relies).

Mario has booked a flight scheduled to arrive at 5:00 pm—which should allow him to get here around 6:30 pm. So by 7:00 pm we will be going out to dinner with Mario.

Assumption: The plane Mario is booked on will arrive not significantly later than the scheduled time. This assumption, though necessary, is not sufficient; for example, we also need to assume that Mario managed to catch his flight.

• **Sufficient assumptions:** unstated facts or opinions that, if assumed, allow reasoning to succeed logically. One GMAT question form for sufficient assumptions is: *Which of the following, if assumed, would allow the conclusion to follow logically.*

The study of poetry is entirely without value, since poetry has no practical use.

Assumption: The study of what has no practical use is entirely without value. This assumption, along with the premise given, provides sufficient support for the conclusion: if both the premise and the assumption are true, then the conclusion must also be true. But the following, more complex, assumption would also be sufficient:

Anything with no practical use is entirely without value, and the study of anything that is entirely without value is also entirely without value.

This shows that two distinct assumptions can each be sufficient, neither of them being necessary.

2. Understand the logic of if-then statements and associated inferences.

A conditional statement is a compound statement consisting of the part that expresses a condition (the "if" portion) and a part that expresses a supposed consequence: for example, "If it has rained today, then the ground is wet." (The order can be reversed, and the word *then* omitted: "The ground is wet if it has rained today.")

There are certain errors that people often make in drawing inferences from conditional (*if-then*) statements. Consider the following:

Attorney: If the jury finds the executive guilty of embezzlement, he will receive a prison sentence. But the jury will not find him guilty of embezzlement. So the executive is unlikely to receive a prison sentence. (Pattern: if A occurs, then B occurs. A does not occur. Therefore, B does not occur.)

A little consideration will indicate that, in the absence of additional information (e.g., that the executive will not be found guilty of any other crime), the inference is faulty. Similarly, the following argument is in error:

Attorney: If the jury finds the executive guilty of embezzlement, he will receive a prison sentence. He will, I believe, receive a prison sentence. Therefore, the jury will find him guilty of embezzlement. (Pattern: If A occurs, then B occurs. B occurs. Therefore, A occurs.)

On the other hand, the following argument is logically correct (i.e., if both premises are true, then the conclusion must be true):

Attorney: If the jury finds the executive guilty of embezzlement, he will receive a prison sentence. But he will not, I believe, receive a prison sentence. Therefore, the jury will not find him guilty of embezzlement. (Pattern: If A occurs, then B occurs. B does not occur. Therefore, A does not occur.)

The following argument is also logically correct:

Attorney: If the jury finds the executive guilty of embezzlement, he will receive a prison sentence. And the jury will find him guilty of embezzlement, I believe. So he will receive a prison sentence. (Pattern: If A occurs, then B occurs. A occurs. Therefore, B occurs.)

In each of these cases, the second premise in the pattern is crucial: for correct reasoning, that premise should either affirm the *if*-clause, or deny the *then*-clause.

To thoroughly understand the logic of *if-then* statements, it is useful to note the structural equivalence displayed in the following simple pair of examples:

In daytime, if the sky is entirely clear, then there is sunshine.

In daytime, if there is no sunshine, the sky is not entirely clear.

The statements contain the same information, even if they can, in context, have differing rhetorical impacts. They are necessarily either both true or both false. Note, however, that we can easily imagine a situation where each of these statements is true but the following statement false:

In daytime, if the sky is not entirely clear, then there is no sunshine.

Therefore, this third statement does not follow logically from either of the others.

| Conditional Statements: Correct and Incorrect Inference Patterns | | |
|--|------------------------------|--|
| Premise(s) | Conclusion | |
| If A occurs, B occurs. A does occur. | B occurs (correct) | |
| If A occurs, B occurs. B does not occur. | A does not occur (correct) | |
| If A occurs, B occurs. B does occur. | A occurs (incorrect) | |
| If A occurs, B occurs. A does not occur | B does not occur (incorrect) | |

3. Pay attention to statements that indicate a necessary condition or a sufficient condition.

There are many ways to indicate that something is necessary or sufficient for the occurrence of another event or phenomenon. Here is an example:

Unless you sleep well tonight, you will not compete well in tomorrow's track events.

This indicates that sleeping well tonight is a necessary condition of competing well in tomorrow's track events. This could be expressed by "Sleeping well tonight is necessary in order that you compete well in tomorrow's track events only if you sleep well tonight." *If-then* statements are sometimes used to indicate that something is a necessary condition or a sufficient condition, with the *if*-clause indicating a sufficient condition or the *then*-clause indicating a necessary condition. The statement "If you sleep well tonight, then you will compete well in tomorrow's track event" indicates that sleeping well tonight is a sufficient condition of competing well in tomorrow's track event—in the sense that, given the truth of the *if-then* statement, the situation where you sleep well tonight but do not compete well in tomorrow's track event will not occur.

Fulfillment of an accurately expressed sufficient condition "guarantees" that something else will occur, but the fulfillment of a necessary condition is no guarantee that something else will occur. Suppose sleeping well tonight is a necessary (but not a sufficient) condition of competing well tomorrow in the track events. Then even if you do sleep well tonight (and therefore fulfill the condition said to be necessary), you may still not compete well tomorrow; there may be one or more other necessary conditions that have not been fulfilled (e.g., the condition that you will be in fine form with adequate energy).

4. Be careful with negatives applied to AND statements and OR statements.

When someone denies an *and*-statement or denies an *or*-statement, it is quite easy to make an incorrect inference from a mistaken understanding of what the denial implies. Consider the following dialogue:

John: Humidity is high today and the temperature is high today.

Joanna: I believe that's not correct.

Is Joanna committed to the claim that humidity is not high today? Is she committed to the claim that the temperature is not high today? No. She is committed to the claim that humidity and temperature are *not both* high today—but not to the claim that neither is high today. Instead, her position can be paraphrased as: "At least one of the two, humidity and temperature, is not high today." To affirm the negation of an *and*-statement is, in effect, to affirm an *or*-statement—a principle that we could represent as follows:

"It is false that both statement 1 AND statement 2 are true" is equivalent to "Statement 1 is false OR statement 2 is false, OR both are false."

A related point—in reverse—can be made about *or*-statements. Consider the following dialogue:

Economist 1: Inflation will rise next year or equities will decline.

Economist 2: I believe that's incorrect.

Economist 2 denies the statement made by Economist 1. Economist 2 is committed to the view that there will *neither* be increased inflation *nor* a decline in equities—or equivalently, to the view that inflation will not rise and equities will not decline. If Economist 1 had said "Either inflation will rise next year or equities will decline," the meaning would be that one but not both effects will occur. Since the statement was not an *either-or* statement, just a simple *or*-statement, it asserts that at least one of the effects will occur, i.e., it leaves open the possibility that both effects could occur.

5. Be aware of issues concerning general statements.

Statements about *all* or *some* members of a class are called "general statements." Some tempting inferences are incorrect—and sometimes obviously so, as in: "All primes are odd numbers. Therefore, all odd numbers are primes." The premise tells us that the subject class (primes) is entirely contained in the predicate class (odd numbers)—but there are odd numbers that are not primes, such as the number fifteen. So the premise is correct but the conclusion is false, and the following inference, which has an identical logical structure, is also incorrect: "All geniuses are exceptionally creative thinkers, so all exceptionally creative thinkers are geniuses."

A similar point can be made regarding certain statements of the form *some As are not Bs*. From the premise "Some citizens of India are not residents of Mumbai," can it be correctly inferred that "Some residents of Mumbai are not citizens of India"? No—this inference is incorrect, since it has a true premise and a false conclusion, just as in "Some odd numbers are not primes, so some primes are not odd numbers." Compare with the following: "Some biologists are not researchers, so some researchers are not biologists." Based on common knowledge, both the premise and conclusion are true—but the structure of the argument is the same as in the preceding two examples, and the argument is therefore flawed.

Even though "some" can sometimes be read, depending on the context, as meaning "some but not all," it should often be read as meaning "at least one"—even if a plural noun follows "some." If I say "Some voters are critical thinkers," that claim will be true whether all, or only one or two, voters are critical thinkers.

Some confusion can arise in cases where general statements are negated or denied. Consider the following dialogue:

Jana: Some voters in modern democracies are critical thinkers.

Julio: I wonder about that—in fact I think it's not true at all.

Julio's statement commits him to the claim that no voters in modern democracies are critical thinkers—not just to the weaker claim that some voters in modern democracies are not critical thinkers. And consider the following:

Jana: Every voter in modern democracies is a critical thinker.

Julio: I wonder about that—in fact I think that's not true at all.

Julio's statement commits him to the claim that some voters—one or more—in modern democracies are not critical thinkers—but not to the more sweeping claim that no such voters are (his claim will be true, of course, if no such voters are).

Not every general statement carries an implication that the subject class is not empty, i.e., contains at least one member. Consider the following:

Every life-form native only to planets other than Earth is carbon-based.

For all we know, the subject class—designated by the italicized phrase—may in reality be an "empty" class (equivalent to the null set), so we cannot correctly infer from this statement the following:

Some life-forms native only to planets other than Earth are carbon-based.

A some-statement always carries the implication that the subject class is non-empty, i.e., has at least one member.

Some general statements can easily be misread. Learn to distinguish carefully the following statements:

Some food is the favorite of every adult in Nation X.

Every adult in Nation X has some favorite food.

These statements are not equivalent. The first says something that is unlikely to be true: that there is a particular food that is a *universal* favorite among adults in Nation X. The second says only that each adult in Nation X has some food that is his or her favorite—which may well be true.

6. Note ways in which definitions can be defective.

Definitions serve various purposes, but all have the goal of making things adequately clear. A definition can simply give a conventional dictionary meaning—but many ordinary words have more than one meaning, and a definition may be needed if the meaning is not clear enough from context. Sometimes a new term needs to be introduced or an existing term needs to have a precise definition for a special (perhaps technical) purpose. Definitions are flawed if they are too vague for the intended purpose—when it is not sufficiently clear whether a given entity would fall inside or outside the class of things apparently targeted by the defined term. Also, a definition can be too broad or too narrow—when the definition incorrectly includes or excludes one or more items.

Consider the following: "An athlete is a fast runner or a high jumper." This is both too narrow and too imprecise—and perhaps too broad (depending on context): for example, does it include racehorses? A definition can be circular: "Atmospheric pressure is the air pressure in the earth's atmosphere." This is both circular and vague—and useless for scientific purposes.

7. Understand how hypotheses are confirmed.

A hypothesis is a proposed explanation that serves as a starting point for further investigation. On the GMAT exam, you may be asked to identify or evaluate a hypothesis that most plausibly explains a phenomenon or event. To do so, you should look for evidence that either supports or goes against the hypothesis.

Imagine the following research study designed to test the efficacy of a new teaching method for ten-year-old girls and boys. Sixty ten-year-old children are divided into two groups that are matched relative to gender distribution, measured performance in mathematics achievement, and all other factors presumed relevant. Method M, a new instructional method for teaching a set of designated mathematical skills, is applied to one of the groups, and an established method, Method E, for the same skills is applied to the other. Performance on the skills after ten weeks of instruction is measured for both groups, and a comparison made between the two data sets is appropriately processed. The goal is to discover whether the data confirms the following hypothesis (in the form of a prediction):

If Method M is applied to groups of children like these, there will be a significantly larger gain in mathematical performance than if Method E is applied.

Suppose the data shows that the group subjected to Method M has a significantly larger gain in performance than the other group (the "control group"). This information provides some support for the hypothesis, provided that adequate scientific controls and statistical processing have been correctly executed (ensuring these two conditions are met is not always easy). The confirmatory evidence supports the superior efficacy of Method M, but it is not conclusive. What the evidence shows is that the experimental results for these children are *consistent with* the hypothesis that Method M generally has superior efficacy for such children. The *if*-clause is true of one of these groups of children—presumed typical of a larger population of ten-year-old children—and so is the *then*-clause. It is one piece of evidence that the hypothetical statement given above has not been falsified—and therefore is quite possibly correct. If the *then*-clause turned out false, this would be evidence against the hypothesis. Accumulation of confirmatory evidence through replicated experiments will greatly strengthen the confirmation of the hypothesis.

The finding of Method M's efficacy can be validly generalized only to groups of children that resemble in relevant respects the children featured in the study. In other words, the groups of children must be typical, i.e., *representative*, of the large population of ten-year-old children to whom Method M may be applied if it is scientifically validated. A similar principle of representativeness must govern sample selection in any study that aims to establish scientific results generalizable to a larger group or population.

8.4 Section Instructions

Go to www.mba.com/tutorial to view instructions for the section and get a feel for what the test center screens will look at on the actual GMAT exam.

8.5 Practice Questions

Each of the critical reasoning questions is based on a short argument, a set of statements, or a plan of action. For each question, select the best answer of the choices given.

*CR700041 01

610. Arts advocate: Few universities require that students who are specializing in science and technology take many art courses. However, real progress in science and technology requires an element of creativity, which the arts foster. Thus, to help science and technology students succeed in their careers, universities should increase the number of art courses required for them.

Which of the following would, if true, most strengthen the argument above?

- (A) Universities required more art courses for science and technology students in the past.
- (B) Participation in art courses increases students' creative thinking in their science and technology courses.
- (C) More students who are interested in art would specialize in science and technology if the number of art courses required for those programs were increased.
- (D) Some of the most prominent scientists began their careers as artists.
- (E) Discussion of science and technology topics in art courses increases creative thinking among students in those courses.

CR48541.01

611. A successful coffee stand that serves the workers in a large office building plans to increase its profits by adding oatmeal—a hot cereal popular among the workers—to its menu. The manager says that oatmeal is "the ultimate convenience food" because it can be served by the cup, as coffee is; further, offering oatmeal will enable the stand to get into the breakfast business without making a large investment, because it does not require elaborate cooking equipment.

Which of the following would, if true, most strengthen the likelihood that the manager's plan will achieve its goal?

(A) Some of the office building's businesses have recently begun providing free coffee to their employees.

- (B) The ingredients needed to make oatmeal are inexpensive and do not spoil easily the way many fresh breakfast foods typically sold at coffee stands do.
- (C) In order to offer more flexible schedules to their workers, several businesses in the office building will soon be expanding their hours.
- (D) Supermarket sales of oatmeal and other cereals slowed this year following large gains last year.
- (E) Oatmeal manufacturers have recently reduced their oatmeal offerings, which had included oatmeal in microwaveable cups and convenient cereal bars made with rolled oats.

CR53631.01

612. Ramirez: The film industry claims that pirated DVDs, which are usually cheaper than legitimate DVDs and become available well before a film's official DVD release date, adversely affect its bottom line. But the industry should note what the spread of piracy indicates: consumers want lower prices and faster DVD releases. Lowering prices of DVDs and releasing them sooner would mitigate piracy's negative effect on film industry profits.

The argument above relies on which of the following assumptions?

- (A) Releasing legitimate DVDs earlier would not cause any reduction in the revenue the film industry receives from the films' theatrical release.
- (B) Some people who would otherwise purchase pirated DVDs would be willing to purchase legitimate DVDs if they were less expensive and released earlier than they are now.
- (C) The film industry will in the future be able to produce DVDs more cheaply than is currently the case.
- (D) Some current sellers of pirated DVDs would likely discontinue their businesses if legitimate DVDs were released faster and priced lower.
- (E) Current purchasers of pirated DVDs are aware that those DVDs are not authorized by the film industry.

^{*}These numbers correlate with the online test bank question number. See the GMAT Official Guide Online Index in the back of this book.

CR79041.01

613. Harunia Province has a relatively dry climate and is attracting a fast-growing population that has put increasing demands on its water supply. The two companies that supply water to the region have struggled to keep up with demand and still remain profitable. Yet now they are asking Harunian authorities to write residential water-use regulations that could reduce their revenues and restrict their future flexibility in supplying water profitably.

Which of the following would, if true, most logically help explain why the water-supply companies are asking the authorities to regulate residential water use?

- (A) The companies are planning large watertransportation and irrigation systems that require the approval of neighboring provinces.
- (B) The companies believe regulation is inevitable and that having it in place now will allow better planning and thus future profitability.
- (C) Few, if any, Harunian government officials have investments in the companies or serve on their boards of directors.
- (D) The companies believe that the population is not likely to continue to grow.
- (E) Long-term climate projections suggest that greater rainfall will eventually increase the amount of water available.

CR31551.01

614. Loss of the Gocha mangrove forests has caused coastal erosion, reducing fish populations and requiring the Gocha Fishing Cooperative (GFC) to partially fund dredging and new shore facilities. However, as part of its subsidiary businesses, the GFC has now invested in a program to replant significant parts of the coast with mangrove trees. Given income from a controlled harvest of wood with continuing replanting, the mangrove regeneration effort makes it more likely that the cooperative will increase its net income.

Which of the following, if true, would most strengthen the argument that mangrove replanting will increase the Gocha cooperative's net income?

(A) The cost of dredging and shore facilities was shared with the local government.

- (B) The GFC will be able to hire local workers to assist with the mangrove replanting.
- (C) The GFC derives 10 percent of its revenue from salt-production facilities in an area previously cleared of mangroves.
- (D) Mangrove forests tend to increase the commercial fish populations in coastal fishing grounds.
- (E) A controlled harvesting of mangrove wood by the GFC would have little effect on coastal erosion.

CR07651.01

615. Executives at the Fizzles Beverage Company plan to boost profits in Country X on their range of fruit-flavored drinks by introducing new flavors based on tropical fruits that are little known there. The executives reason that since the fruit drinks of other companies have none of these flavors, Fizzles will not have to compete for customers and thus will be able to sell the drinks at a higher price.

Which of the following, if true, presents the most serious potential weakness of the plan?

- (A) The new fruit drinks would be priced significantly higher than other Fizzles fruit drinks with more conventional flavors.
- (B) In a telephone survey, at least one of the consumers contacted said that they preferred many of the new flavors to all of the more familiar flavors.
- (C) To build widespread demand for the new flavors, Fizzles would have to launch an advertising campaign to familiarize consumers with them.
- (D) Consumers choosing among fruit-flavored drinks of different brands generally buy on the basis of name recognition and price rather than the specific fruit flavor.
- (E) Few consumers who are loyal to a specific brand of fruit-flavored drinks would willingly switch to another brand that costs more.

CR33061.01

616. Economist: In 2015, the average per-person amount paid for goods and services purchased by consumers in Country X was the equivalent of \$17,570 in United States dollars, just 30 percent of the corresponding figure of \$58,566 for Country Y. Yet in 2015, there was already a substantial middle class in Country X that had discretionary income for middle-class consumer goods such as new vehicles, computers, or major household appliances, while a significant portion of the middle class in Country Y did not have sufficient income to purchase such items.

Which of the following, if true, most helps explain the discrepancy in the relationships described by the economist?

- (A) There are many consumer goods, such as household appliances, that are produced in Country X to be sold in the Country Y market.
- (B) The volume of trade between Country X and Country Y is increasing rapidly in both directions.
- (C) The economy of Country Y is recovering from a downturn that affected both Country Y and Country X.
- (D) Country X residents pay much less than their Country Y counterparts for housing, transportation, and child care.
- (E) In Country Y as well as in Country X, there are few assembly-line jobs in factories that pay a middle-class wage.

CR09616

617. Neuroscientist: Memory evolved to help animals react appropriately to situations they encounter by drawing on the past experience of similar situations. But this does not require that animals perfectly recall every detail of all their experiences. Instead, to function well, memory should generalize from past experiences that are similar to the current one.

The neuroscientist's statements, if true, most strongly support which of the following conclusions?

- (A) At least some animals perfectly recall every detail of at least some past experiences.
- (B) Perfectly recalling every detail of all their past experiences could help at least some animals react more appropriately than they otherwise would to new situations they encounter.

- (C) Generalizing from past experiences requires clear memories of most if not all the details of those experiences.
- (D) Recalling every detail of all past experiences would be incompatible with any ability to generalize from those experiences.
- (E) Animals can often react more appropriately than they otherwise would to situations they encounter if they draw on generalizations from past experiences of similar situations.

CR52061.01

618. In Country X's last election, the Reform Party beat its main opponent, the Conservative Party, although pollsters, employing in-person interviews shortly before the vote, had projected a Conservative Party victory. Afterwards, the pollsters determined that, unlike Conservative Party supporters, Reform Party supporters were less likely to express their party preference during in-person interviews than they were during telephone interviews. Therefore, using only telephone interviews instead would likely result in more accurate projections for the next election.

Which of the following statements, if true, would most support the argument in the passage?

- (A) The number of voters in Country X's next election will be significantly larger than the number of voters in the last election.
- (B) The Conservative Party will win the next election.
- (C) For each person interviewed in telephone polls before the next election, pollsters will be able to reasonably determine the likelihood of that person voting.
- (D) People who expressed no party preference during the in-person interviews shortly before Country X's last election did not outnumber the people who expressed a preference for the Conservative Party.
- (E) In the next election, pollsters will be able to conduct more in-person interviews than telephone interviews.

CR40751.01

619. A company that manufactures plastic products from recyclable plastic is, surprisingly, unconcerned that economic conditions may worsen, despite analysts' belief that consumers would then consider ecofriendly plastic products an expensive luxury. But the company reasons that it will be able to lower its prices because, in a weakened economy, other ecofriendly plastic

manufacturers are likely to fail. Demand among manufacturers for recyclable plastics as raw materials would then plummet, creating an oversupply of such materials, making them less expensive for the manufacturer to purchase and thus lowering the company's costs.

Which of the following, if true, most weakens the company's reasoning?

- (A) Smaller ecofriendly plastic manufacturers are more likely to fail in a weakened economy than larger ecofriendly manufacturers are.
- (B) Some retailers whose sales include various companies' ecofriendly plastic products have struggled in recent years despite the overall good economy.
- (C) Consumers would likely soon learn of the oversupply of recyclable plastics and cease recycling them, significantly raising manufacturers' raw-material costs.
- (D) Retailers, including retailers that cater to consumers seeking certain types of ecofriendly products, may lose some business if economic conditions worsen.
- (E) The plastics used by the company in its products were, after a recent investigation by a regulatory body, declared to be safe for consumers.

CR73241.01

620. Researchers asked volunteers to imagine they were running a five-kilometer race against 50 people and then against 500 people, races in each of which the top 10 percent would receive a \$1,000 prize. Asked about the effort they would apply in the respective cases, the volunteers indicated, on average, that they would run slower in the race against the greater number of people. A likely explanation of this result is that those of the volunteers who were most comparatively inclined—those who most tended to compare themselves with others in the social environment—determined (perhaps unconsciously) that extreme effort would not be worthwhile in the 500-competitor race.

Which of the following would, if known to be true, most help justify the explanation offered above?

(A) The volunteers who were most comparatively inclined were also those that had the greatest desire to win a \$1,000 prize.

- (B) The volunteers who were the least comparatively inclined had no greater desire to win the \$1,000 than those who were the most comparatively inclined.
- (C) The volunteers who were most comparatively inclined were likely to indicate that they would run the two races at the same speed.
- (D) The most comparatively inclined volunteers believed that they were significantly less likely to finish in the top 10 percent in the race against 500 than in the race against 50.
- (E) Volunteers were chosen for participation in the study on the basis of answers to various questions designed to measure the degree to which the volunteers were comparatively inclined.

CR41141.01

621. According to a study, after a week of high-altitude living, twenty men had slimmed down. The men, middle-aged residents of low-altitude areas, had been taken to a research station at 2,650 meters (8,694 feet) above sea level. They had unrestricted access to food and were forbidden vigorous exercise, yet they lost an average of 1.5 kilograms (3.3 pounds) during their one-week stay. Clearly, the lower availability of oxygen at higher altitudes, or hypobaric hypoxia, can be said to have caused the weight loss, since

Which of the following would, if true, most logically complete the argument?

- (A) a decrease in oxygen intake has been shown to depress appetite
- (B) the men all participated in the same kinds of exercise during their stay
- (C) the foods available to the men had fewer calories than the foods they usually ate
- (D) exercise at higher altitudes is more difficult than exercise at lower altitudes is
- (E) several weeks after returning home, the men still weighed less than they had before the study

CR11741 01

622. Editorial: Our city's public transportation agency is facing a budget shortfall. The fastest growing part of the budget has been employee retirement benefits, which are exceptionally generous. Unless the budget shortfall is resolved, transportation service will be cut, and many transportation employees will lose their jobs. Thus, it would be in the employees' best interest for their union to accept cuts in retirement benefits.

Which of the following is an assumption the editorial's argument requires?

- (A) The transportation employees' union should not accept cuts in retirement benefits if doing so would not be in the employees' best interest.
- (B) The only feasible way for the agency to resolve the budget shortfall would involve cutting transportation service and eliminating jobs.
- (C) Other things being equal, it is in the transportation employees' interest to have exceptionally generous retirement benefits.
- (D) Cutting the retirement benefits would help resolve the agency's budget shortfall.
- (E) The transportation employees' union will not accept cuts in retirement benefits if doing so will not allow more transportation employees to keep their jobs.

CR94231.01

623. Researchers hope to find clues about the A'mk peoples who lived in the Kaumpta region about one thousand years ago but who left few obvious traces. The researchers plan to hire the few remaining shamans of the modern-day indigenous people in Kaumpta, who are believed to be descended from the A'mk, to lead them to ancestral sites that may be the remains of A'mk buildings or ceremonial spaces. The shamans were taught the location of such sites as part of their traditional training as youths, and their knowledge of traditional Kaumpta customs may help determine the nature of any sites the researchers find.

Which of the following is an assumption on which the success of the plan depends?

- (A) The researchers have reliable evidence that the A'mk of one thousand years ago built important ceremonial spaces.
- (B) The shamans have a reasonably accurate memory of A'mk sites they learned about as youths.

- (C) Kaumpta shamans are generally held in high esteem for their traditional knowledge.
- (D) Modern technologies available to the researchers are likely to be able to find some A'mk sites easily.
- (E) Most or all A'mk sites are likely to be found within the Kaumpta region.

CR09994

624. Astronomer: Most stars are born in groups of thousands, each star in a group forming from the same parent cloud of gas. Each cloud has a unique, homogeneous chemical composition. Therefore, whenever two stars have the same chemical composition as each other, they must have originated from the same cloud of gas.

Which of the following, if true, would most strengthen the astronomer's argument?

- (A) In some groups of stars, not every star originated from the same parent cloud of gas.
- (B) Clouds of gas of similar or identical chemical composition may be remote from each other.
- (C) Whenever a star forms, it inherits the chemical composition of its parent cloud of gas.
- (D) Many stars in vastly different parts of the universe are quite similar in their chemical compositions.
- (E) Astronomers can at least sometimes precisely determine whether a star has the same chemical composition as its parent cloud of gas.

CR08017

625. With employer-paid training, workers have the potential to become more productive not only in their present employment but also in any number of jobs with different employers. To increase the productivity of their workforce, many firms are planning to maintain or even increase their investments in worker training. But some training experts object that if a trained worker is hired away by another firm, the employer that paid for the training has merely subsidized a competitor. They note that such hiring has been on the rise in recent years.

Which of the following would, if true, contribute most to defeating the training experts' objection to the firms' strategy?

(A) Firms that promise opportunities for advancement to their employees get, on average, somewhat larger numbers of job applications from untrained workers than do firms that make no such promise.

- (B) In many industries, employees who take continuing-education courses are more competitive in the job market.
- (C) More and more educational and training institutions are offering reduced tuition fees to firms that subsidize worker training.
- (D) Research shows that workers whose training is wholly or partially subsidized by their employer tend to get at least as much training as do workers who pay for all their own training.
- (E) For most firms that invest in training their employees, the value added by that investment in employees who stay exceeds the value lost through other employees' leaving to work for other companies.

CR93241.01

626. In emerging economies in Africa and other regions, large foreign banks that were set up during the colonial era have long played a major economic role. These institutions have tended to confine their business to the wealthier of banks' potential customers. But development of these countries' economies requires financing of the small businesses that dominate their manufacturing, farming, and services sectors. So economic growth will be likely to occur if local banks take on this portion of the financial services markets, since ______.

Which of the following completions would produce the strongest argument?

- (A) local banks tend not to strive as much as large foreign banks to diversify their investments
- (B) small farming and manufacturing businesses contribute to economic growth if they obtain adequate investment capital
- (C) large foreign banks in emerging economies could, with local employees and appropriate local consultation, profitably expand their business to less wealthy clients
- (D) some small businesses are among the wealthier customers of foreign banks in emerging economies
- (E) local banks in emerging economies tend to be less risk-averse than foreign banks

CR49551.01

627. Exporters in Country X are facing lower revenues due to a shortage of the large metal shipping containers in which they send their goods by sea to other countries. Fewer containers arrive in Country X due to reductions in imports. This has meant lost orders, costly delays,

and a scramble for alternatives, such as air freight, all of which are costlier. Moreover, the revenues of exporters in Country X will probably continue to decline in the near future. This is because other countries are likely to find it increasingly unprofitable to export their goods to Country X, and because ______.

Which of the following would most logically complete the passage?

- (A) production of shipping containers in Country X is growing rapidly as a response to the shortage
- (B) shipping companies are willing to move containers from country to country only when the containers are full
- (C) the cost of shipping alternatives such as air freight is likely to stabilize in the near future
- (D) consumers in Country X are purchasing more products than ever before
- (E) the worldwide demand for goods made in Country X has only recently begun to rise after a long decline

CR01107

628. Candle Corporation's television stations are likely to have more income from advertisers than previously. This is because advertisers prefer to reach people in the 18- to 49-year-old age group and the number of people in that group watching Candle television is increasing. Furthermore, among Candle viewers, the percentage of viewers 18 to 49 years old is increasing.

Which of the following, if true, would most strengthen the argument that Candle Corporation will receive more income from advertisers?

- (A) Advertisers carefully monitor the demographic characteristics of television audiences and purchase advertising time to reach the audiences they prefer to reach.
- (B) Among people over 49 years old, fewer viewers of Candle stations buy products advertised on television than do viewers of other stations.
- (C) There will be increasingly more advertisements on television that are directed at viewers who are over 49 years old.
- (D) Candle stations plan to show reruns of television shows during hours when other stations run shows for the first time.
- (E) People 18 to 49 years old generally have less disposable income to spend than do people over 49 years old.

629. A provincial government plans to raise the gasoline tax to give people an incentive to drive less, reducing traffic congestion in the long term. However, skeptics point out that most people in the province live in areas where cars are the only viable transportation to jobs and stores and therefore cannot greatly change their driving habits in response to higher gasoline prices.

In light of the skeptics' objection, which of the following, if true, would most logically support the prediction that the government's plan will achieve its goal of reducing traffic congestion?

- (A) The revenue from the tax will be used to make public transportation a viable means of transportation to jobs and stores for far more people.
- (B) The tax will encourage many residents to switch to more fuel-efficient cars, reducing air pollution and other problems.
- (C) Because gasoline has been underpriced for decades, the province has many neighborhoods where cars are the only viable means of transportation.
- (D) Most residents who cannot greatly change their driving habits could compensate for high gasoline prices by reducing other expenses.
- (E) Traffic congestion is an especially serious problem for people for whom cars are the only viable means of transportation.

CR03940

630. Editorial: The roof of Northtown's municipal equipment-storage building collapsed under the weight of last week's heavy snowfall. The building was constructed recently and met local building-safety codes in every particular, except that the nails used for attaching roof supports to the building's columns were of a smaller size than the codes specify for this purpose. Clearly, this collapse exemplifies how even a single, apparently insignificant departure from safety standards can have severe consequences.

Which of the following, if true, most seriously weakens the editorial's argument?

- (A) The only other buildings to suffer roof collapses from the weight of the snowfall were older buildings constructed according to less exacting standards than those in the codes.
- (B) The amount of snow that accumulated on the roof of the equipment-storage building was greater than the predicted maximum that was used in drawing up the safety codes.

- (C) Because the equipment-storage building was not intended for human occupation, some safetycode provisions that would have applied to an office building did not apply to it.
- (D) The municipality of Northtown itself has the responsibility for ensuring that buildings constructed within its boundaries meet the provisions of the building-safety codes.
- (E) Because the equipment-storage building was used for storing snow-removal equipment, the building was almost completely empty when the roof collapsed.

CR12078

631. Political theorist: Even with the best spies, area experts, and satellite surveillance, foreign policy assessments can still lack important information. In such circumstances intuitive judgment is vital. A national leader with such judgment can make good decisions about foreign policy even when current information is incomplete, since ______.

Which of the following, if true, most logically completes the argument?

- (A) the central reason for failure in foreign policy decision making is the absence of critical information
- (B) those leaders whose foreign policy decisions have been highly ranked have also been found to have good intuitive judgment
- (C) both intuitive judgment and good information are required for sound decision making
- (D) good foreign policy decisions often lead to improved methods of gathering information
- (E) intuitive judgment can produce good decisions based on past experience, even when there are important gaps in current information

CR51141.01

632. Supply shortages and signs of growing demand are driving cocoa prices upward. Unusually severe weather in cocoa-producing regions—too much rain in Brazil and too little in West Africa—has limited production. Further, Europe and North America recently reported stronger demand for cocoa. In the first quarter, grinding of cocoa beans—the first stage in processing cocoa for chocolate—rose 8.1 percent in Europe and 16 percent in North America. Analysts have concluded that cocoa's price will continue to rise at least into the near future.

Which of the following would, if true, most strengthen the reasoning above?

(A) Ground cocoa beans can be stored for long periods before they spoil.

- (B) Several European and North American manufacturers that use cocoa have recently improved their processing capacity.
- (C) It takes new cocoa trees five or six years before they start bearing fruit.
- (D) Governments in Europe and North America are likely to change current restrictions on cocoa imports.
- (E) Historically, cocoa production has varied widely from year to year.

633. During the earliest period of industrialization in Britain, steam engines were more expensive to build and operate than either windmills or water mills, the other practicable sources of power for factories. Yet despite their significant cost disadvantage, steam-powered factories were built in large numbers well before technical improvements brought their cost down. Furthermore, they were built even in regions where geographical conditions permitted the construction of wind- and water-powered factories close to major markets.

Which of the following, if true, most helps to explain the proliferation of steam-powered factories during the earliest period of industrialization in Britain?

- (A) In many areas of Britain, there were fewer steampowered factories than wind- or water-powered factories in the earliest period of industrialization.
- (B) Unlike wind- or water-powered factories, steampowered factories were fueled with coal, which sometimes had to be transported significant distances from the mine to the site of the factory.
- (C) It was both difficult and expensive to convert a factory from wind power or water power to steam power.
- (D) In the early period of industrialization, many goods sold in towns and cities could not be mass-produced in factories.
- (E) In Britain, the number of sites where a windor water-powered factory could be built was insufficient to provide for all of the demand for factory-produced goods at the time.

CR03938

634. Snowmaking machines work by spraying a mist that freezes immediately on contact with cold air. Because the sudden freezing kills bacteria, QuickFreeze is planning to market a wastewater purification system that works on the same principle. The process works only when temperatures are cold, however, so municipalities using it will still need to maintain a conventional system.

Which of the following, if true, provides the strongest grounds for a prediction that municipalities will buy QuickFreeze's purification system despite the need to maintain a conventional purification system as well?

- (A) Bacteria are not the only impurities that must be removed from wastewater.
- (B) Many municipalities have old wastewater purification systems that need to be replaced.
- (C) Conventional wastewater purification systems have not been fully successful in killing bacteria at cold temperatures.
- (D) During times of warm weather, when it is not in use, QuickFreeze's purification system requires relatively little maintenance.
- (E) Places where the winters are cold rarely have a problem of water shortage.

CR05080

on seeds to produce crop plants that are highly resistant to insect damage. Unfortunately, the seeds themselves are quite expensive, and the plants require more fertilizer and water to grow well than normal ones. Accordingly, for most farmers the savings on pesticides would not compensate for the higher seed costs and the cost of additional fertilizer. However, since consumer demand for grains, fruits, and vegetables grown without the use of pesticides continues to rise, the use of genetically engineered seeds of this kind is likely to become widespread.

In the argument given, the two portions in **boldface** play which of the following roles?

- (A) The first supplies a context for the argument; the second is the argument's main conclusion.
- (B) The first introduces a development that the argument predicts will have a certain outcome; the second is a state of affairs that, according to the argument, contributes to bringing about that outcome.
- (C) The first presents a development that the argument predicts will have a certain outcome; the second acknowledges a consideration that tends to weigh against that prediction.
- (D) The first provides evidence to support a prediction that the argument seeks to defend; the second is that prediction.
- (E) The first and the second each provide evidence to support the argument's main conclusion.

636. Which of the following most logically completes the passage?

Leptin, a protein occurring naturally in the blood, appears to regulate how much fat the body carries by speeding up the metabolism and decreasing the appetite when the body has too much fat. Mice that do not naturally produce leptin have more fat than other mice, but lose fat rapidly when they are given leptin injections. Unfortunately, however, leptin cannot be used as a dietary supplement to control fat, since ______.

- (A) the digestive system breaks down proteins before they can enter the bloodstream
- (B) there are pharmaceuticals already available that can contribute to weight loss by speeding up the metabolism
- (C) people with unusually low levels of leptin in their blood tend to have a high percentage of body fat
- (D) the mice that do not naturally produce leptin were from a specially bred strain of mice
- (E) mice whose bodies did produce leptin also lost some of their body fat when given leptin injections

CR05452

637. Suncorp, a new corporation with limited funds, has been clearing large sections of the tropical Amazon forest for cattle ranching. This practice continues even though greater profits can be made from rubber tapping, which does not destroy the forest, than from cattle ranching, which does destroy the forest.

Which of the following, if true, most helps to explain why Suncorp has been pursuing the less profitable of the two economic activities mentioned above?

- (A) The soil of the Amazon forest is very rich in nutrients that are important in the development of grazing lands.
- (B) Cattle-ranching operations that are located in tropical climates are more profitable than cattleranching operations that are located in coldweather climates.
- (C) In certain districts, profits made from cattle ranching are more heavily taxed than profits made from any other industry.
- (D) Some of the cattle that are raised on land cleared in the Amazon are killed by wildcats.
- (E) The amount of money required to begin a rubbertapping operation is twice as high as the amount needed to begin a cattle ranch.

CR0996

638. Archaeologists use technology to analyze ancient sites. It is likely that this technology will advance considerably in the near future, allowing archaeologists to gather more information than is currently possible. If they study certain sites now, they risk contaminating or compromising them for future studies. Therefore, in order to maximize the potential for gathering knowledge in the long run, a team of archaeologists plans to delay the examination of a newly excavated site.

Which of the following would be most useful to investigate for the purpose of evaluating the plan's prospects for achieving its goal?

- (A) Whether any of the contents of the site will significantly deteriorate before the anticipated technology is available
- (B) Whether there will continue to be improvements on the relevant technology
- (C) Whether the team can study a site other than the newly excavated site for the time being
- (D) Whether the site was inhabited by a very ancient culture
- (E) Whether the anticipated technology will damage objects under study

CR01102

639. More and more law firms specializing in corporate taxes are paid on a contingency-fee basis. Under this arrangement, if a case is won, the firm usually receives more than it would have received if it had been paid on the alternate hourly rate basis. If the case is lost, the firm receives nothing. Most firms are likely to make more under the contingency-fee arrangement.

Which of the following, if true, would most strengthen the prediction above?

- (A) Firms that work exclusively under the hourly rate arrangement spend, on average, fewer hours on cases that are won than on cases that are lost.
- (B) Some litigation can last for years before any decision is reached, and, even then, the decision may be appealed.
- (C) Firms under the contingency-fee arrangement still pay their employees on an hourly basis.
- (D) Since the majority of firms specialize in certain kinds of cases, they are able to assess accurately their chances of winning each potential case.
- (E) Firms working under the contingency-fee arrangement take in fewer cases per year than do firms working under the hourly rate arrangement.

640. Beginning in 1966 all new cars sold in Morodia were required to have safety belts and power steering.

Previously, most cars in Morodia were without these features. Safety belts help to prevent injuries in collisions, and power steering helps to avoid collisions in the first place. But even though in 1966 one-seventh of the cars in Morodia were replaced with new cars, the number of car collisions and collision-related injuries did not decline.

Which of the following, if true about Morodia, most helps to explain why the number of collisions and collision-related injuries in Morodia failed to decline in 1966?

- (A) Because of a driver-education campaign, most drivers and passengers in cars that did have safety belts used them in 1966.
- (B) Most of the new cars bought in 1966 were bought in the months of January and February.
- (C) In 1965, substantially more than one-seventh of the cars in Morodia were replaced with new cars.
- (D) An excessive reliance on the new safety features led many owners of new cars to drive less cautiously in 1966 than before.
- (E) The seat belts and power steering put into new cars sold in 1966 had to undergo strict quality-control inspections by manufacturers, whether the cars were manufactured in Morodia or not.

CR04882

641. Enterprise Bank currently requires customers with checking accounts to maintain a minimum balance or pay a monthly fee. Enterprise plans to offer accounts with no monthly fee and no minimum-balance requirement; to cover their projected administrative costs of \$3 per account per month they plan to charge \$30 for overdrawing an account. Since each month on average slightly more than 10 percent of Enterprise's customers overdraw their accounts, bank officials predict the new accounts will generate a profit.

Which of the following, if true, most strongly supports the bank officials' prediction?

(A) Some of Enterprise Bank's current checking account customers are expected to switch to the new accounts once they are offered.

- (B) One third of Enterprise Bank's revenues are currently derived from monthly fees tied to checking accounts.
- (C) Many checking account customers who occasionally pay a fee for not maintaining a minimum balance in their account generally maintain a balance well above the minimum.
- (D) Customers whose checking accounts do not have a minimum-balance requirement are more likely than others to overdraw their checking accounts.
- (E) Customers whose checking accounts do not have a minimum-balance requirement are more likely than others to write checks for small amounts.

CR05667

642. In virtually any industry, technological improvements increase labor productivity, which is the output of goods and services per person-hour worked. In Parland's industries, labor productivity is significantly higher than it is in Vergia's industries. Clearly, therefore, Parland's industries must, on the whole, be further advanced technologically than Vergia's are.

The argument is most vulnerable to which of the following criticisms?

- (A) It offers a conclusion that is no more than a paraphrase of one of the pieces of information provided in its support.
- (B) It presents as evidence in support of a claim information that is inconsistent with other evidence presented in support of the same claim.
- (C) It takes one possible cause of a condition to be the actual cause of that condition without considering any other possible causes.
- (D) It takes a condition to be the effect of something that happened only after the condition already existed.
- (E) It makes a distinction that presupposes the truth of the conclusion that is to be established.

643. Chaco Canyon, a settlement of the ancient Anasazi culture in North America, had massive buildings. It must have been a major Anasazi center. Analysis of wood samples shows that some of the timber for the buildings came from the Chuska and San Mateo mountains, 50 miles from Chaco Canyon. Only a major cultural center would have the organizational power to import timber from 50 miles away.

In the argument given, the two portions in boldface play which of the following roles?

- (A) The first is a premise used to support the argument's main conclusion; the second is the argument's main conclusion.
- (B) The first is the argument's main conclusion; the second is a premise used to support that conclusion.
- (C) The first is one of two premises used to support the argument's main conclusion; the second is the other of those two premises.
- (D) The first is a premise used to support the argument's main conclusion; the second is a premise used to support another conclusion drawn in the argument.
- (E) The first is inferred from another statement in the argument; the second is inferred from the first.

CR04364

644. The Maxilux car company's design for its new luxury model, the Max 100, included a special design for the tires that was intended to complement the model's image. The winning bid for supplying these tires was submitted by Rubco. Analysts concluded that the bid would only just cover Rubco's costs on the tires, but Rubco executives claim that winning the bid will actually make a profit for the company.

Which of the following, if true, most strongly justifies the claim made by Rubco's executives?

- (A) In any Maxilux model, the spare tire is exactly the same make and model as the tires that are mounted on the wheels.
- (B) Rubco holds exclusive contracts to supply Maxilux with the tires for a number of other models made by Maxilux.
- (C) The production facilities for the Max 100 and those for the tires to be supplied by Rubco are located very near each other.

- (D) When people who have purchased a carefully designed luxury automobile need to replace a worn part of it, they almost invariably replace it with a part of exactly the same make and type.
- (E) When Maxilux awarded the tire contract to Rubco, the only criterion on which Rubco's bid was clearly ahead of its competitors' bids was price.

CR05186

645. Which of the following most logically completes the passage?

Most bicycle helmets provide good protection for the top and back of the head, but little or no protection for the temple regions on the sides of the head. A study of head injuries resulting from bicycle accidents showed that a large proportion were caused by blows to the temple area. Therefore, if bicycle helmets protected this area, the risk of serious head injury in bicycle accidents would be greatly reduced, especially since ______.

- (A) among the bicyclists included in the study's sample of head injuries, only a very small proportion had been wearing a helmet at the time of their accident
- (B) even those bicyclists who regularly wear helmets have a poor understanding of the degree and kind of protection that helmets afford
- (C) a helmet that included protection for the temples would have to be somewhat larger and heavier than current helmets
- (D) the bone in the temple area is relatively thin and impacts in that area are thus very likely to cause brain injury
- (E) bicyclists generally land on their arm or shoulder when they fall to the side, which reduces the likelihood of severe impacts on the side of the head

CR01867

646. Which of the following most logically completes the argument?

In a typical year, Innovair's airplanes are involved in 35 collisions while parked or being towed in airports, with a resulting yearly cost of \$1,000,000 for repairs.

To reduce the frequency of ground collisions, Innovair will begin giving its ground crews additional training, at an annual cost of \$500,000. Although this will cut the number of ground collisions by about half at best, the drop in repair costs can be expected to be much greater, since ______.

- (A) most ground collisions happen when ground crews are rushing to minimize the time a delayed airplane spends on the ground
- (B) a ground collision typically occurs when there are no passengers on the airplane
- (C) the additional training will focus on helping ground crews avoid those kinds of ground collisions that cause the most costly damage
- (D) the \$500,000 cost figure for the additional training of ground crews includes the wages that those crews will earn during the time spent in actual training
- (E) most ground collisions have been caused by the least experienced ground-crew members

647. Many agriculturally intensive areas of the world are beginning to encounter water scarcity problems. As a result, many farmers in these areas are likely to reduce their output as the water supply they need in order to maintain production shrinks. However, one group of farmers in such a region plans to increase their production by implementing techniques for water conservation.

Which of the following, if true, would most strongly support the prediction that the group's plan will succeed?

- (A) Farmers that can gain a larger share of the food market in their regions will be better positioned to control more water resources.
- (B) Most agricultural practices in areas with water shortages are water-intensive.
- (C) Other regions of the world not facing water shortages are likely to make up for the reduction in agricultural output.
- (D) Demand for agricultural products in the group's region is not expected to decline.
- (E) More than half the water used for agriculture in the farmers' region is lost to evaporation or leakage from irrigation channels.

CR03367

648. Hollywood restaurant is replacing some of its standard tables with tall tables and stools. The restaurant already fills every available seat during its operating hours, and the change in seating arrangements will not result in an increase in the restaurant's seating capacity. Nonetheless, the restaurant's management expects revenue to increase as a result of the seating

change without any concurrent change in menu, prices, or operating hours.

Which of the following, if true, provides the best reason for the expectation?

- (A) One of the taller tables takes up less floor space than one of the standard tables.
- (B) Diners seated on stools typically do not linger over dinner as long as diners seated at standard tables.
- (C) Since the restaurant will replace only some of its standard tables, it can continue to accommodate customers who do not care for the taller tables.
- (D) Few diners are likely to avoid the restaurant because of the new seating arrangement.
- (E) The standard tables being replaced by tall tables would otherwise have to be replaced with new standard tables at a greater expense.

CR07660

649. A major network news organization experienced a drop in viewership in the week following the airing of a controversial report on the economy. The network also received a very large number of complaints regarding the report. The network, however, maintains that negative reactions to the report had nothing to do with its loss of viewers.

Which of the following, if true, most strongly supports the network's position?

- (A) The other major network news organizations reported similar reductions in viewership during the same week.
- (B) The viewers who registered complaints with the network were regular viewers of the news organization's programs.
- (C) Major network news organizations publicly attribute drops in viewership to their own reports only when they receive complaints about those reports.
- (D) This was not the first time that this network news organization has aired a controversial report on the economy that has inspired viewers to complain to the network.
- (E) Most network news viewers rely on network news broadcasts as their primary source of information regarding the economy.

650. Only a reduction of 10 percent in the number of scheduled flights using Greentown's airport will allow the delays that are so common there to be avoided. Hevelia airstrip, 40 miles away, would, if upgraded and expanded, be an attractive alternative for fully 20 percent of the passengers using Greentown airport. Nevertheless, experts reject the claim that turning Hevelia into a full-service airport would end the chronic delays at Greentown.

Which of the following, if true, most helps to justify the experts' position?

- (A) Turning Hevelia into a full-service airport would require not only substantial construction at the airport itself, but also the construction of new access highways.
- (B) A second largely undeveloped airstrip close to Greentown airport would be a more attractive alternative than Hevelia for many passengers who now use Greentown.
- (C) Hevelia airstrip lies in a relatively undeveloped area but would, if it became a full-service airport, be a magnet for commercial and residential development.
- (D) If an airplane has to wait to land, the extra jet fuel required adds significantly to the airline's costs.
- (E) Several airlines use Greentown as a regional hub, so that most flights landing at Greentown have many passengers who then take different flights to reach their final destinations.

CR07712

651. Farmer: Worldwide, just three grain crops—rice, wheat, and corn—account for most human caloric intake. To maintain this level of caloric intake and also keep pace with global population growth, yields per acre from each of these crops will have to increase at least 1.5 percent every year, given that the supply of cultivated land is diminishing. Therefore, the government should increase funding for research into new ways to improve yields.

Which of the following is an assumption on which the farmer's argument depends?

(A) It is solely the government's responsibility to ensure that the amount of rice, wheat, and corn produced worldwide keeps pace with global population growth.

- (B) Increasing government funding for research into new ways to improve the yields per acre of rice, wheat, and corn crops would help to increase total worldwide annual production of food from these crops.
- (C) Increasing the yields per acre of rice, wheat, and corn is more important than increasing the yields per acre of other crops.
- (D) Current levels of funding for research into ways of improving grain crop yields per acre have enabled grain crop yields per acre to increase by more than 1.5 percent per year worldwide.
- (E) In coming decades, rice, wheat, and corn will become a minor part of human caloric intake, unless there is government-funded research to increase their yields per acre.

CR08770

652. The air quality board recently informed Coffee Roast, a small coffee roasting firm, of a complaint regarding the smoke from its roaster. Recently enacted air quality regulations require machines roasting more than 10 pounds of coffee to be equipped with expensive smokedissipating afterburners. The firm, however, roasts only 8 pounds of coffee at a time. Nevertheless, the company has decided to purchase and install an afterburner.

Which of the following, if true, most strongly supports the firm's decision?

- (A) Until settling on the new air quality regulations, the board had debated whether to require afterburners for machines roasting more than 5 pounds of coffee at a time.
- (B) Coffee roasted in a machine equipped with an afterburner has its flavor subtly altered.
- (C) The cost to the firm of an afterburner is less than the cost of replacing its roaster with a smaller one.
- (D) Fewer complaints are reported in areas that maintain strict rules regarding afterburners.
- (E) The firm has reason to fear that negative publicity regarding the complaints could result in lost sales.

653. People who do regular volunteer work tend to live longer, on average, than people who do not. It has been found that "doing good," a category that certainly includes volunteer work, releases endorphins, the brain's natural opiates, which induce in people a feeling of well-being. Clearly, there is a connection: Regular releases of endorphins must in some way help to extend people's lives.

Which of the following, if true, most seriously undermines the force of the evidence given as support for the hypothesis that endorphins promote longevity?

- (A) People who do regular volunteer work are only somewhat more likely than others to characterize the work they do for a living as "doing good."
- (B) Although extremely high levels of endorphins could be harmful to health, such levels are never reached as a result of the natural release of endorphins.
- (C) There are many people who have done some volunteer work but who do not do such work regularly.
- (D) People tend not to become involved in regular volunteer work unless they are healthy and energetic to begin with.
- (E) Releases of endorphins are responsible for the sense of well-being experienced by many longdistance runners while running.

CR04140

654. A study compared a sample of Swedish people older than 75 who needed in-home assistance with a similar sample of Israeli people. The people in the two samples received both informal assistance, provided by family and friends, and formal assistance, professionally provided. Although Sweden and Israel have equally well-funded and comprehensive systems for providing formal assistance, the study found that the people in the Swedish sample received more formal assistance, on average, than those in the Israeli sample.

Which of the following, if true, does most to explain the difference that the study found?

(A) A companion study found that among children needing special in-home care, the amount of formal assistance they received was roughly the same in Sweden as in Israel.

- (B) More Swedish than Israeli people older than 75 live in rural areas where formal assistance services are sparse or nonexistent.
- (C) Although in both Sweden and Israel much of the funding for formal assistance ultimately comes from the central government, the local structures through which assistance is delivered are different in the two countries.
- (D) In recent decades, the increase in life expectancy of someone who is 75 years old has been greater in Israel than in Sweden.
- (E) In Israel, people older than 75 tend to live with their children, whereas in Sweden people of that age tend to live alone.

CR05077

655. Film Director: It is true that certain characters and plot twists in my newly released film *The Big Heist* are similar to characters and plot twists in *Thieves*, a movie that came out last year. Pointing to these similarities, the film studio that produced *Thieves* is now accusing me of taking ideas from that film. The accusation is clearly without merit. All production work on *The Big Heist* was actually completed months before *Thieves* was released.

Which of the following, if true, provides the strongest support for the director's position?

- (A) Before Thieves began production, its script had been circulating for several years among various film studios, including the studio that produced The Big Heist.
- (B) The characters and plot twists that are most similar in the two films have close parallels in many earlier films of the same genre.
- (C) The film studio that produced *Thieves* seldom produces films in this genre.
- (D) The director of *Thieves* worked with the director of *The Big Heist* on several earlier projects.
- (E) Production work on *Thieves* began before production work on *The Big Heist* was started.

656. In Mernia commercial fossil hunters often sell important fossils they have found, not to universities or museums, but to individual collectors, who pay much better but generally do not allow researchers access to their collections. To increase the number of fossils available for research, some legislators propose requiring all fossils that are found in Mernia to be sold only to universities or museums.

Which of the following, if true, most strongly indicates that the legislators' proposal will fail to achieve its goal?

- (A) Some fossil hunters in Mernia are not commercial fossil hunters, but rather are amateurs who keep the fossils that they find.
- (B) Most fossils found in Mernia are common types that have little scientific interest.
- (C) Commercial fossil hunters in Mernia currently sell some of the fossils they find to universities and museums.
- (D) Many universities in Mernia do not engage in fossil research.
- (E) Most fossils are found by commercial fossil hunters, and they would give up looking for fossils if they were no longer allowed to sell to individual collectors.

CR02702

657. Economist: Tropicorp, which constantly seeks profitable investment opportunities, has been buying and clearing sections of tropical forest for cattle ranching, although pastures newly created there become useless for grazing after just a few years. The company has not gone into rubber tapping. even though greater profits can be made from rubber tapping, which leaves the forest intact. Thus, some environmentalists argue that Tropicorp's actions do not serve even its own economic interest. However, the initial investment required for a successful rubber-tapping operation is larger than that needed for a cattle ranch; there is a shortage of workers employable in rubber-tapping operations; and taxes are higher on profits from rubber tapping than on profits from cattle ranching. Consequently, the environmentalists' conclusion is probably wrong.

In the economist's argument, the two **boldface** portions play which of the following roles?

- (A) The first supports the conclusion of the economist's argument; the second calls that conclusion into question.
- (B) The first states the conclusion of the economist's argument; the second supports that conclusion.
- (C) The first supports the conclusion of the environmentalists' argument; the second states that conclusion.
- (D) The first states the conclusion of the environmentalists' argument; the second states the conclusion of the economist's argument.
- (E) Each supports the conclusion of the economist's argument.

CR74231.01

658. Marketing executive for Magu Corporation: Whenever Magu opens a manufacturing facility in a new city, the company should sponsor, or make donations to, a number of nonprofit organizations in that city. Doing so would improve Magu's image in the community, and thus the money spent on such charitable ventures would lead to increased sales.

Which statement would, if true, point to the most serious weakness in the marketing executive's advice?

- (A) Magu sells its products internationally, so sales in any one city represent only a small portion of total revenue.
- (B) Spending on charitable ventures would require Magu to decrease direct advertisements, which are the most effective means of reaching its target customers.
- (C) If market conditions change, Magu may have to close any such facility or relocate it.
- (D) Some nonprofit organizations are poorly organized, so money donated to them would be of little benefit to the community.
- (E) If workers at the manufacturing facility believed their wages or working conditions were poor, their complaints would outweigh any good impressions generated by Magu's donations or sponsorships.

659. Although the school would receive financial benefits if it had soft drink vending machines in the cafeteria, we should not allow them. Allowing soft drink machines there would not be in our students' interest. If our students start drinking more soft drinks, they will be less healthy.

The argument depends on which of the following?

- (A) If the soft drink vending machines were placed in the cafeteria, students would consume more soft drinks as a result.
- (B) The amount of soft drinks that most students at the school currently drink is not detrimental to their health.
- (C) Students are apt to be healthier if they do not drink soft drinks at all than if they just drink small amounts occasionally.
- (D) Students will not simply bring soft drinks from home if the soft drink vending machines are not placed in the cafeteria.
- (E) The school's primary concern should be to promote good health among its students.

CR01112

660. Many athletes inhale pure oxygen after exercise in an attempt to increase muscular reabsorption of oxygen. Measured continuously after exercise, however, the blood lactate levels of athletes who inhale pure oxygen are practically identical, on average, to those of athletes who breathe normal air. The lower the blood lactate level is, the higher the muscular reabsorption of oxygen is.

If the statements above are all true, they most strongly support which of the following conclusions?

- (A) Athletes' muscular reabsorption of oxygen is not increased when they inhale pure oxygen instead of normal air.
- (B) High blood lactate levels cannot be reduced.
- (C) Blood lactate levels are a poor measure of oxygen reabsorption by muscles.
- (D) The amount of oxygen reabsorbed by an athlete's muscles always remains constant.
- (E) The inhaling of pure oxygen has no legitimate role in athletics.

CR79751.0

661. Historian: Fifteenth-century advances in mapmaking contributed to the rise of modern nation-states. In medieval Europe (from the fifth to the fifteenth century), sovereignty centered in cities and towns and radiated outward, with boundaries often ambiguously defined. The conceptual shift toward the modern state began in the late fifteenth century, when mapmakers learned to reflect geography accurately by basing maps on latitude-longitude grids. By the mid-seventeenth century, nearly all maps showed boundary lines.

Which of the following would, if true, most strengthen the historian's reasoning?

- (A) Borders did not become codified in Europe until certain treaties were signed in the early nineteenth century.
- (B) During the medieval period, various authorities in Europe claimed power over collections of cities and towns, not contiguous territories.
- (C) Many members of the political elite collected maps as a hobby during the late sixteenth and early seventeenth centuries.
- (D) Seventeenth-century treatises and other sources of political authority describe areas of sovereignty rather than illustrate them using maps.
- (E) During the fifteenth century in Europe, mapmakers simplified the borders of sovereignty by drawing clear lines of demarcation between political powers.

CR11751.01

662. Sascha: The attempt to ban parliament's right to pass directed-spending bills—bills that contain provisions specifically funding the favorite projects of some powerful politicians—is antidemocratic. Our nation's constitution requires that money be drawn from our treasury only when so stipulated by laws passed by parliament, the branch of government most directly representative of the citizens. This requirement is based on the belief that exercising the power to spend public resources involves the ultimate exercise of state authority and that therefore

Which of the following most logically completes Sascha's argument?

- (A) designating funding specifically for the favorite projects of some powerful politicians should be considered antidemocratic
- (B) the right to exercise such a power should belong exclusively to the branch of government most directly representative of the citizens
- exercising the power to spend public resources is in most cases—but not all—protected by the constitution
- (D) modifications to any spending bills should be considered expenditures authorized by law
- (E) only officials who are motivated by concerns for reelection should retain that power

CR02143

663. Boreal owls range over a much larger area than do other owls of similar size. Scientists have hypothesized that it is scarcity of prey that leads the owls to range so widely. This hypothesis would be hard to confirm directly, since it is not possible to produce a sufficiently accurate count of the populations of small mammals inhabiting the forests where boreal owls live. Careful study of owl behavior has, however, shown that boreal owls do range over larger areas when they live in regions where food of the sort eaten by small mammals is comparatively sparse. This indicates that the scientists' hypothesis is not sheer speculation.

In the argument given, the two **boldfaced** portions play which of the following roles?

(A) The first presents an explanatory hypothesis; the second states the main conclusion of the argument.

- (B) The first presents an explanatory hypothesis; the second presents evidence tending to support this hypothesis.
- (C) The first presents an explanatory hypothesis; the second presents evidence to support an alternative explanation.
- (D) The first describes a position that the argument opposes; the second presents evidence to undermine the support for the position being opposed.
- (E) The first describes a position that the argument opposes; the second states the main conclusion of the argument.

CR18731.01

664. Cognitive scientist: Using the pioneering work of comparative psychologist Gordon Gallup as a model, several studies have investigated animals' capacity for mirror self-recognition (MSR). Most animals exposed to a mirror respond only with social behavior, such as aggression. However, in the case of the great apes, repeated exposure to mirrors leads to self-directed behaviors, such as exploring the inside of the mouth, suggesting that these animals recognize the reflection as an image of self. The implication of these studies is that the great apes have a capacity for self-awareness unique among nonhuman species.

The cognitive scientist makes which of the following assumptions in the argument above?

- (A) Gallup's work has established that the great apes have a capacity for MSR unique among nonhuman species.
- (B) If an animal does not have the capacity for MSR, it does not have the capacity for self-awareness.
- (C) If a researcher exposes an animal to a mirror and that animal exhibits social behavior, that animal is incapable of being self-aware.
- (D) When exposed to a mirror, all animals display either social behavior or self-directed behavior.
- (E) Animals that do not exhibit MSR may demonstrate a capacity for self-awareness in other ways.

665. Last year a record number of new manufacturing jobs were created. Will this year bring another record? Well, any new manufacturing job is created either within an existing company or by the start-up of a new company. Within existing firms, new jobs have been created this year at well below last year's record pace. At the same time, there is considerable evidence that the number of new companies starting up will be no higher this year than it was last year and there is no reason to think that the new companies starting up this year will create more jobs per company than did last year's start-ups. So clearly, the number of new jobs created this year will fall short of last year's record.

In the argument given, the two portions in **boldface** play which of the following roles?

- (A) The first is a claim that the argument challenges; the second is an explicit assumption on which that challenge is based.
- (B) The first is a claim that the argument challenges; the second is a judgment advanced in support of the main conclusion of the argument.
- (C) The first provides evidence in support of the main conclusion of the argument; the second is an objection that has been raised against that main conclusion.
- (D) The first provides evidence in support of the main conclusion of the argument; the second is a judgment advanced in support of that main conclusion.
- (E) The first and the second are each claims that have been advanced in support of a position that the argument opposes.

CR07809

- 666. A study of ticket sales at a summer theater festival found that people who bought tickets to individual plays had a no-show rate of less than 1 percent, while those who paid in advance for all ten plays being performed that summer had a no-show rate of nearly 30 percent. This may be at least in part because the greater the awareness customers retain about the cost of an item, the more likely they are to use it.
 - Which of the following would, if true, best serve as an alternative explanation of the results of the study?

- (A) The price per ticket was slightly cheaper for those who bought all ten tickets in advance.
- (B) Many people who attended the theater festival believed strongly that they should support it financially.
- (C) Those who attended all ten plays became eligible for a partial refund.
- (D) Usually, people who bought tickets to individual plays did so immediately prior to each performance that they attended.
- (E) People who arrived just before the performance began could not be assured of obtaining seats in a preferred location.

CR12019

667. Although there is no record of poet Edmund Spenser's parentage, we do know that as a youth Spenser attended the Merchant Tailors' School in London for a period between 1560 and 1570. Records from this time indicate that the Merchant Tailors' Guild then had only three members named Spenser: Robert Spenser, listed as a gentleman; Nicholas Spenser, elected the Guild's Warden in 1568; and John Spenser, listed as a "journeyman cloth-maker." Of these, the last was likely the least affluent of the three—and most likely Edmund's father, since school accounting records list Edmund as a scholar who attended the school at a reduced fee.

Which of the following is an assumption on which the argument depends?

- (A) Anybody in sixteenth-century London who made clothing professionally would have had to be a member of the Merchant Tailors' Guild.
- (B) The fact that Edmund Spenser attended the Merchant Tailors' School did not necessarily mean that he planned to become a tailor.
- (C) No member of the Guild could become Guild warden in sixteenth-century London unless he was a gentleman.
- (D) Most of those whose fathers were members of the Merchant Tailors' Guild were students at the Merchant Tailors' School.
- (E) The Merchant Tailors' School did not reduce its fees for the children of the more affluent Guild members.

CR20831.01

668. Hea Sook: One should not readily believe urban legends. Most legends are propagated because the moral lesson underlying them supports a political agenda. People will repeat a tale if it fits their purpose. They may not deliberately spread untruths, but neither are they particularly motivated to investigate deeply to determine if the tale they are telling is true.

Kayla: But people would not repeat stories that they did not believe were true. Therefore, one can safely assume that if a story has been repeated by enough people then it is more likely to be true.

Kayla's reply is most vulnerable to the criticism that it

- (A) does not specify how many people need to repeat a story before someone is justified believing it
- (B) overstates the significance of political agendas in the retelling of stories
- (C) fails to address the claim that people will not verify the truth of a story that fits their purpose
- implicitly supports the claim that the people repeating legends are not deliberately spreading untruths
- (E) cannot distinguish people's motivations for repeating urban legends from their motivations for repeating other types of story

CR03749

669. Rainwater contains hydrogen of a heavy form called deuterium. The deuterium content of wood reflects the deuterium content of rainwater available to trees during their growth. Wood from trees that grew between 16,000 and 24,000 years ago in North America contains significantly more deuterium than wood from trees growing today. But water trapped in several North American caves that formed during that same early period contains significantly less deuterium than rainwater in North America contains today.

Which of the following, if true, most helps to reconcile the two findings?

- (A) There is little deuterium in the North American caves other than the deuterium in the water trapped there.
- (B) Exposure to water after a tree has died does not change the deuterium content of the wood.

- (C) Industrialization in North America over the past 100 years has altered the deuterium content of rain.
- (D) Trees draw on shallow groundwater from rain that falls during their growth, whereas water trapped in caves may have fallen as rainwater thousands of years before the caves formed.
- (E) Wood with a high deuterium content is no more likely to remain preserved for long periods than is wood with a low deuterium content.

CR04925

670. Enforcement of local speed limits through police monitoring has proven unsuccessful in the town of Ardane. In many nearby towns, speed humps (raised areas of pavement placed across residential streets, about 300 feet apart) have reduced traffic speeds on residential streets by 20 to 25 percent. In order to reduce traffic speed and thereby enhance safety in residential neighborhoods, Ardane's transportation commission plans to install multiple speed humps in those neighborhoods.

Which of the following, if true, identifies a potentially serious drawback to the plan for installing speed humps in Ardane?

- (A) On residential streets without speed humps, many vehicles travel at speeds more than 25 percent above the posted speed limit.
- (B) Because of their high weight, emergency vehicles such as fire trucks and ambulances must slow almost to a stop at speed humps.
- (C) The residential speed limit in Ardane is higher than that of the nearby towns where speed humps were installed.
- (D) Motorists who are not familiar with the streets in Ardane's residential districts would be likely to encounter the speed humps unawares unless warned by signs and painted indicators.
- (E) Bicyclists generally prefer that speed humps be constructed so as to leave a space on the side of the road where bicycles can travel without going over the humps.

671. Which of the choices most logically completes the following argument?

NowNews, although still the most popular magazine covering cultural events in Kalopolis, has recently suffered a significant drop in advertising revenue because of falling circulation. Many readers have begun buying a competing magazine that, at 50 cents per copy, costs less than NowNews at \$1.50 per copy. In order to boost circulation and thus increase advertising revenue, NowNews's publisher has proposed making it available at no charge. However, this proposal has a serious drawback, since ______.

- (A) those Kalopolis residents with the greatest interest in cultural events are regular readers of both magazines.
- (B) one reason *NowNews's* circulation fell was that its competitor's reporting on cultural events was superior.
- (C) the newsstands and stores that currently sell NowNews will no longer carry it if it is being given away for free.
- (D) at present, 10 percent of the total number of copies of each issue of *NowNews* are distributed free to students on college campuses in the Kalopolis area.
- (E) NowNews's competitor would begin to lose large amounts of money if it were forced to lower its cover price.

CR07304

672. Archaeologist: Researchers excavating a burial site in Cyprus found a feline skeleton lying near a human skeleton. Both skeletons were in the same sediment at the same depth and equally well-preserved, suggesting that the feline and human were buried together about 9,500 years ago. This shows that felines were domesticated around the time farming began, when they would have been useful in protecting stores of grain from mice.

Which of the following, if true, would most seriously weaken the archaeologist's argument?

(A) Archaeologists have not found any remains of stores of grain in the immediate vicinity of the burial site.

- (B) The burial site in Cyprus is substantially older than any other known burial site in which a feline skeleton and a human skeleton appear to have been buried together.
- (C) Paintings found near the burial site seem to show people keeping felines as domestic companions, but do not show felines hunting mice.
- (D) In Cyprus, there are many burial sites dating from around 9,500 years ago in which the remains of wild animals appear to have been buried alongside human remains.
- (E) Before felines were domesticated, early farmers had no effective way to protect stores of grain from mice.

CR90061.01

673. Farmer: Several people in the past few years have claimed to have seen a mountain lion in the suburban outskirts—the latest just last month—and, while mountain lions were thought to have been driven from this entire region about twenty years ago, there is no reason for the people who reported seeing a mountain lion to have deliberately concocted a false report. Therefore, local wildlife managers should begin to urgently address the mountain lion's presence.

Which of the following would, if true, most seriously weaken the farmer's argument?

- (A) Farmers in the suburban outskirts mostly raise cattle and hogs, which when fully grown are generally not attacked by mountain lions.
- (B) Mountain lions are dissimilar in size and color to other wild animals found near the suburban outskirts.
- (C) No person who claimed to have seen a mountain lion had anyone else with them at the purported sighting.
- (D) There have been no regional reports in the past year of mountain lions migrating to the area.
- (E) Recent surveys show that more than half of the people in the region report that they have never seen a mountain lion before.

674. The heavy traffic in Masana is a growing drain on the city's economy—the clogging of the streets of the central business district alone cost the economy more than \$1.2 billion over the past year. In order to address this problem, officials plan to introduce congestion pricing, by which drivers would pay to enter the city's most heavily trafficked areas during the busiest times of the day.

Which of the following, if true, would most strongly indicate that the plan will be a success?

- (A) Approximately one-fifth of the vehicles in the central business district are in transit from one side of the city to the other.
- (B) Planners expect that, without congestion pricing, traffic in Masana is likely to grow by 6 percent in the next five years.
- (C) In other urban areas, congestion pricing has strongly encouraged carpooling (sharing of rides by private commuters).
- (D) Several studies have shown that a reduction in traffic of 15 percent in Masana could result in 5,500 or more new jobs.
- (E) Over 30 percent of the vehicles in the city's center are occupied by more than one person.

CR09151

675. Economist: The most economically efficient way to reduce emissions of air pollutants is to tax them in proportion to the damage they are likely to cause. But in Country Y, many serious pollutants are untaxed and unregulated, and policy makers strongly oppose new taxes. Therefore, the best way to achieve a reduction in air pollutant emissions in Country Y would be to institute fixed upper limits on them.

Which of the following is an assumption of the economist's argument?

- (A) Policy makers in Country Y oppose all new taxes equally strongly, regardless of any benefits they may provide.
- (B) Country Y's air pollutant emissions would not fall significantly if they were taxed in proportion to the damage they are likely to cause.
- (C) Policy makers in Country Y strongly favor reductions in air pollutant emissions.

- (D) Country Y's policy makers believe that air pollutant emissions should be reduced with maximum economic efficiency.
- (E) Policy makers in Country Y do not oppose setting fixed upper limits on air pollutant emissions as strongly as they oppose new taxes.

CR04986

676. Humans get Lyme disease from infected ticks. Ticks get infected by feeding on animals with Lyme disease, but the ease of transmission from host animal to tick varies. With most species of host animal, transmission of Lyme disease to ticks is extremely rare, but white-footed mice are an exception, readily passing Lyme disease to ticks. And white-footed mouse populations greatly expand, becoming the main food source for ticks, in areas where biodiversity is in decline.

The information in the passage most strongly supports which of the following?

- (A) In areas where many humans are infected with Lyme disease, the proportion of ticks infected with Lyme disease is especially high.
- (B) Very few animals that live in areas where there are no white-footed mice are infected with Lyme disease.
- (C) Humans are less at risk of contracting Lyme disease in areas where biodiversity is high.
- (D) Ticks feed on white-footed mice only when other host species are not available to them.
- (E) The greater the biodiversity of an area, the more likely any given host animal in that area is to pass Lyme disease to ticks.

CR04935

677. Many industrialized nations are trying to reduce atmospheric concentrations of carbon dioxide, a gas released by the burning of fossil fuels. One proposal is to replace conventional cement, which is made with calcium carbonate, by a new "eco-cement." This new cement, made with magnesium carbonate, absorbs large amounts of carbon dioxide when exposed to the atmosphere. Therefore, using eco-cement for new concrete building projects will significantly help reduce atmospheric concentrations of carbon dioxide.

Which of the following, if true, most strengthens the argument?

- (A) The cost of magnesium carbonate, currently greater than the cost of calcium carbonate, probably will fall as more magnesium carbonate is used in cement manufacture.
- (B) Eco-cement is strengthened when absorbed carbon dioxide reacts with the cement.
- (C) Before the development of eco-cement, magnesium-based cement was considered too susceptible to water erosion to be of practical use.
- (D) The manufacture of eco-cement uses considerably less fossil fuel per unit of cement than the manufacture of conventional cement does.
- (E) Most building industry groups are unaware of the development or availability of eco-cement.

678. Advertisement: When your car's engine is running at its normal operating temperature, any major brand of motor oil will protect it about as well as Tuff does. When the engine is cold, it is a different story: Tuff motor oil flows better at lower temperatures than its major competitors do. So, if you want your car's engine to have maximum protection, you should use Tuff.

Which of the following, if true, most strengthens the argument in the advertisement?

- (A) Tuff motor oil provides above-average protection for engines that happen to overheat.
- (B) Tuff motor oil is periodically supplied free of charge to automobile manufacturers to use in factory-new cars.
- (C) Tuff motor oil's share of the engine oil market peaked three years ago.
- (D) Tuff motor oil, like any motor oil, is thicker and flows less freely at cold temperatures than at hot temperatures.
- (E) Tuff motor oil is manufactured at only one refinery and shipped from there to all markets.

CR55541.01

679. Linguist: In English, the past is described as "behind" and the future "ahead," whereas in Aymara the past is "ahead" and the future "behind." Research indicates that English speakers sway backward when discussing the past and forward when discussing the future. Conversely, Aymara speakers gesture forward with their hands when discussing the past and backward when discussing the future. These bodily movements, therefore, suggest that the language one speaks affects how one mentally visualizes time.

The linguist's reasoning depends on assuming which of the following?

- (A) At least some Aymara speakers sway forward when discussing the past and backward when discussing the future.
- (B) Most people mentally visualize time as running either forward or backward.
- (C) Not all English and Aymara speakers tend to sway or gesture forward or backward when discussing the present.
- (D) How people move when discussing the future correlates to some extent with how they mentally visualize time.
- (E) The researchers also examined the movements of at least some speakers of languages other than English and Aymara discussing the past and the future.

CR13108

680. The Testament of William Thorpe was published around 1530 as an appendix to Thorpe's longer Examination. Many scholars, however, doubt the attribution of the Testament to Thorpe because, whereas the Examination is dated 1406, the Testament is dated 1460. One scholar has recently argued that the 1460 date be amended to 1409, based on the observation that when these numbers are expressed as Roman numerals, MCCCCLX and MCCCCIX, it becomes easy to see how the dates might have become confused through scribal error.

Which of the following, if true, would most support the scholar's hypothesis concerning the date of the *Testament*?

- (A) The sole evidence that historians have had that William Thorpe died no earlier than 1460 was the presumed date of publication of the *Testament*.
- (B) In the preface to the 1530 publication, the editor attributes both works to William Thorpe.
- (C) Few writers in fifteenth-century England marked dates in their works using only Roman numerals.
- (D) The *Testament* alludes to a date, "Friday, September 20," as apparently contemporaneous with the writing of the *Testament*, and September 20 fell on a Friday in 1409 but not in 1460.
- (E) The *Testament* contains few references to historical events that occurred later than 1406.

681. A prominent investor who holds a large stake in the Burton Tool Company has recently claimed that the company is mismanaged, citing as evidence the company's failure to slow down production in response to a recent rise in its inventory of finished products. It is doubtful whether an investor's sniping at management can ever be anything other than counterproductive, but in this case, it is clearly not justified. It is true that an increased inventory of finished products often indicates that production is outstripping demand, but in Burton's case it indicates no such thing. Rather, the increase in inventory is entirely attributable to products that have already been assigned to orders received from customers.

In the argument given, the two **boldfaced** portions play which of the following roles?

- (A) The first states a generalization that underlies the position that the argument as a whole opposes; the second provides evidence to show that the generalization does not apply in the case at issue.
- (B) The first states a generalization that underlies the position that the argument as a whole opposes; the second clarifies the meaning of a specific phrase as it is used in that generalization.
- (C) The first provides evidence to support the conclusion of the argument as a whole; the second is evidence that has been used to support the position that the argument as a whole opposes.
- (D) The first provides evidence to support the conclusion of the argument as a whole; the second states that conclusion.
- (E) The first and the second each provide evidence against the position that the argument as a whole opposes.

CR10028

682. To reduce productivity losses from employees calling in sick, Corporation X implemented a new policy requiring employees to come into work unless they were so sick that they had to go to a doctor. But a year after the policy was implemented, a study found that Corporation X's overall productivity losses due to reported employee illnesses had increased.

Which of the following, if true, would best explain why the policy produced the reverse of its intended effect?

(A) After the policy was implemented, employees more frequently went to the doctor when they felt sick.

- (B) Before the policy was implemented, employees who were not sick at all often called in sick.
- (C) Employees coming into work when sick often infect many of their coworkers.
- (D) Unusually few employees became genuinely sick during the year after the policy was implemented.
- (E) There are many other factors besides employee illness that can adversely affect productivity.

CR08443

683. Advertising by mail has become much less effective, with fewer consumers responding. Because consumers are increasingly overwhelmed by the sheer amount of junk mail they receive, most discard almost all offers without considering them. Thus, an effective way for corporations to improve response rates would be to more carefully target the individuals to whom they mail advertising, thereby cutting down on the amount of junk mail each consumer receives.

Which of the following, if true, would most support the recommendation above?

- (A) There are cost-effective means by which corporations that currently advertise by mail could improve response rates.
- (B) Many successful corporations are already carefully targeting the individuals to whom they mail advertising.
- (C) Any consumer who, immediately after receiving an advertisement by mail, merely glances at it, is very likely to discard it.
- (D) Improvements in the quality of the advertising materials used in mail that is carefully targeted to individuals can improve the response rate for such mail.
- (E) Response rates to carefully targeted advertisements by mail are considerably higher, on average, than response rates to most other forms of advertising.

CR01905

684. Petrochemical industry officials have said that the extreme pressure exerted on plant managers during the last five years to improve profits by cutting costs has done nothing to impair the industry's ability to operate safely. However, environmentalists contend that the recent rash of serious oil spills and accidents at petrochemical plants is traceable to cost-cutting measures.

Which of the following, if true, would provide the strongest support for the position held by industry officials?

- (A) The petrochemical industry benefits if accidents do not occur, since accidents involve risk of employee injury as well as loss of equipment and product.
- (B) Petrochemical industry unions recently demanded that additional money be spent on safety and environmental protection measures, but the unions readily abandoned those demands in exchange for job security.
- (C) Despite major cutbacks in most other areas of operation, the petrochemical industry has devoted more of its resources to environmental and safety measures in the last five years than in the preceding five years.
- (D) There is evidence that the most damaging of the recent oil spills would have been prevented had cost-cutting measures not been instituted.
- (E) Both the large fines and the adverse publicity generated by the most recent oil spill have prompted the petrochemical industry to increase the resources devoted to oil-spill prevention.

CR01368

685. A company has developed a new sensing device that, according to the company's claims, detects weak, ultralow-frequency electromagnetic signals associated with a beating heart. These signals, which pass through almost any physical obstruction, are purportedly detected by the device even at significant distances. Therefore, if the company's claims are true, their device will radically improve emergency teams' ability to locate quickly people who are trapped within the wreckage of collapsed buildings.

Which of the following, if true, most strengthens the argument?

- (A) People trapped within the wreckage of collapsed buildings usually have serious injuries that require prompt medical treatment.
- (B) The device gives a distinctive reading when the signals it detects come from human beings rather than from any other living beings.
- (C) Most people who have survived after being trapped in collapsed buildings were rescued within two hours of the building's collapse.
- (D) Ultralow-frequency signals are not the only electromagnetic signals that can pass through almost any physical obstruction.

(E) Extensive training is required in order to operate the device effectively.

CR11639

686. Economist: The price of tap water in our region should be raised drastically. **Supplies in local freshwater reservoirs have been declining for years** because water is being used faster than it can be replenished. Since the price of tap water has been low, **few users have bothered to adopt even easy conservation measures**.

The two sections in boldface play which of the following roles in the economist's argument?

- (A) The first is a conclusion for which support is provided, and which in turn supports the main conclusion; the second is the main conclusion.
- (B) The first is an observation for which the second provides an explanation; the second is the main conclusion but not the only conclusion.
- (C) The first is a premise supporting the argument's main conclusion; so is the second.
- (D) The first is the only conclusion; the second provides an explanation for the first.
- (E) The first is the main conclusion; the second is a conclusion for which support is provided, and which in turn supports the first.

CR13127

687. Politician: Hybrid cars use significantly less fuel per kilometer than nonhybrids. And fuel produces air pollution, which contributes to a number of environmental problems. Motorists can save money by driving cars that are more fuel efficient, and they will be encouraged to drive hybrid cars if we make them aware of that fact. Therefore, we can help reduce the total amount of pollution emitted by cars in this country by highlighting this advantage of hybrid cars.

Which of the following, if true, would most indicate a vulnerability of the politician's argument?

- (A) People with more fuel-efficient cars typically drive more than do those with less fuel-efficient cars.
- (B) Not all air pollution originates from automobiles.
- (C) Hybrid cars have already begun to gain popularity.
- (D) Fuel-efficient alternatives to hybrid cars will likely become available in the future.
- (E) The future cost of gasoline and other fuel cannot be predicted with absolute precision or certainty.

CR99530 01

688. Mayor: False alarms from home security systems waste so much valuable police time that in many communities police have stopped responding to alarms from homes whose systems frequently produce false alarms. This policy reduces wastage of police time but results in a loss of protection for some residents. To achieve a comparable reduction in wastage without reducing protection for residents, the council has enacted a measure to fine residents for repeated false alarms.

Which of the following, if true, casts the most doubt on whether the measure enacted by the council will achieve its goal?

- (A) A fine in the amount planned by the council will not cover the expenses police typically incur when they respond to a false alarm.
- (B) Homes equipped with security systems are far less likely to be broken into than are homes without security systems.
- (C) The threat of fines is likely to cause many residents to deactivate their security systems.
- (D) The number of home security systems is likely to increase dramatically over the next five years.
- (E) Many home security systems have never produced false alarms.

CR53341.01

689. Excavation of the house of a third-century Camarnian official revealed that he had served four magistrates—public officials who administer the law—over his thirty-year public career, in four provincial capital cities. However, given the Camarnian administrative system of that era, it is unclear whether he served them simultaneously, as a traveling administrator living for part of the year in each provincial capital, or else did so sequentially, leaving one magistrate after several years to join another.

Which of the following would, if found in the excavation, most likely help reveal the pattern of the official's administrative service?

- (A) Maps and documents describing each of the four provincial capitals
- (B) A cache of the official's documents related to work from early in his career
- (C) A set of cups of a type made only in the city of the first magistrate whom the official is known to have served

- (D) Several pieces of furniture in the styles of two of the provincial capital cities
- (E) Heavy clothing appropriate only for the coldest of the four cities

CR80531.01

690. In 1563, in Florence's Palazzo Vecchio, Giorgio Vasari built in front of an existing wall a new wall on which he painted a mural. Investigators recently discovered a gap between Vasari's wall and the original, large enough to have preserved anything painted on the original. Historians believe that Leonardo da Vinci had painted, but left unfinished, a mural on the original wall; some historians had also believed that by 1563 the mural had been destroyed. However, it is known that in the late 1560s, when renovating another building, Santa Maria Novella, Vasari built a façade over its frescoes, and the frescoes were thereby preserved. Thus, Leonardo's Palazzo Vecchio mural probably still exists behind Vasari's wall.

Which of the following is an assumption on which the argument depends?

- (A) Leonardo rarely if ever destroyed artworks that he left unfinished.
- (B) Vasari was likely unaware that the mural in the Palazzo Vecchio had willingly been abandoned by Leonardo.
- (C) Vasari probably would not have built the Palazzo Vecchio wall with a gap behind it except to preserve something behind the new wall.
- (D) Leonardo would probably have completed the Palazzo Vecchio mural if he had had the opportunity to do so.
- (E) When Vasari preserved the frescoes of Santa Maria Novella he did so secretly.

CR09534

691. Coffee shop owner: A large number of customers will pay at least the fair market value for a cup of coffee, even if there is no formal charge. Some will pay more than this out of appreciation of the trust that is placed in them. And our total number of customers is likely to increase. We could therefore improve our net cash flow by implementing an honor system in which customers pay what they wish for coffee by depositing money in a can.

Manager: We're likely to lose money on this plan. Many customers would cheat the system, paying a very small sum or nothing at all.

Which of the following, if true, would best support the owner's plan, in light of the manager's concern?

- (A) The new system, if implemented, would increase the number of customers.
- (B) By roasting its own coffee, the shop has managed to reduce the difficulties (and cost) of maintaining an inventory of freshly roasted coffee.
- (C) Many customers stay in the cafe for long stretches of time.
- (D) The shop makes a substantial profit from pastries and other food bought by the coffee drinkers.
- (E) No other coffee shop in the area has such a system.

CR01900

692. The city of Workney, in raising bus fares from \$1.00 to \$1.25, proposed that 18 fare tokens be sold for \$20.00 to alleviate the extra burden of the fare increase on the city's poor people. Critics suggested alternatively that 9 fare tokens be sold for \$10.00, because a \$20.00 outlay would be prohibitive for poor riders.

The alternative proposal depends on which of the following assumptions?

- (A) Poor residents of Workney will continue to ride the buses in the same numbers despite the fare increase.
- (B) Riders who are poor would be more likely to take advantage of the savings afforded by the 9-token offer than would riders who are not poor.
- (C) The outlay of \$10.00 for the purchase of 9 fare tokens would not be prohibitive for bus riders who are poor.
- (D) The proposed fare increase is needed for the purchase of new buses for the city's bus system.
- (E) Fewer riders would regularly purchase 18 fare tokens at once than would purchase only 9 fare tokens at once.

CR03272

693. Birds have been said to be descended from certain birdlike dinosaur species with which they share distinctive structural features. The fossil record,

however, shows that this cannot be so, since there are bird fossils that are much older than the earliest birdlike dinosaur fossils that have been found

Which of the following is an assumption on which the argument relies?

- (A) The birdlike dinosaurs have no living descendants.
- (B) There are no flightless dinosaur species that have the distinctive structural features shared by birds and birdlike dinosaurs.
- (C) There are no birdlike dinosaur fossils that are older than the bird fossils but have not yet been unearthed.
- (D) It could not have been the case that some birds were descended from one of the birdlike dinosaur species and other birds from another.
- (E) Birds cannot have been descended from dinosaur species with which the birds do not share the distinctive structural features.

CR08239

694. City council member: Demand for electricity has been increasing by 1.5 percent a year, and there simply is no more space to build additional power plants to meet future demand increases. We must therefore begin to curtail usage, which is why I propose passing ordinances requiring energy-conservation measures in all city departments.

The city council member's proposal assumes which of the following?

- (A) Existing power plants do not have the capacity to handle all of the projected increase in demand for electricity.
- (B) No city departments have implemented energyconservation measures voluntarily.
- (C) Passing ordinances designed to curtail electricity usage will not have negative economic consequences for the city.
- (D) Residential consumers are not responsible for the recent increases in demand for electricity.
- (E) City departments that successfully conserve energy will set a good example for residential and industrial consumers of electricity.

CR32441.01

695. Certain groups of Asian snails include both "left-handed" and "right-handed" species, with shells coiling to the left and right, respectively. Some left-handed species have evolved from right-handed ones. Also, researchers found that snail-eating snakes in the same habitat have asymmetrical jaws, allowing them to grasp right-handed snail shells more easily. If these snakes ate more right-handed snails over time, this would have given left-handed snails an evolutionary advantage over right-handed snails, with the left-handed snails eventually becoming a new species. Thus, the snakes' asymmetrical jaws probably helped drive the emergence of the left-handed snail species.

Which of the following would, if true, most strengthen the argument that asymmetrical snake jaws helped drive left-handed snail evolution?

- (A) In one snake species, the snakes with asymmetrical jaws eat snails, while the snakes with symmetrical jaws do not eat snails.
- (B) Some species of Asian snails contain either all right-handed snails, or all left-handed snails.
- (C) Anatomical differences prevent left-handed snails from mating easily with right-handed snails.
- (D) Some right-handed snails in this habitat have shells with a very narrow opening that helps prevent snakes from extracting the snails from inside their shells.
- (E) Experiments show that the snail-eating snakes in this habitat fail more often in trying to eat lefthanded snails than in trying to eat right-handed snails.

CR95631.01

696. A moderately large city is redesigning its central downtown area and is considering a plan that would reduce the number of lanes for automobiles and trucks and increase those for bicycles and pedestrians. The intent is to attract more workers and shoppers to downtown businesses by making downtown easier to reach and more pleasant to move around in.

Which of the following would, if true, most strongly support the prediction that the plan would achieve its goal?

- (A) People who make a habit of walking or bicycling whenever feasible derive significant health benefits from doing so.
- (B) Most people who prefer to shop at suburban malls instead of downtown urban areas do so

- because parking is easier and cheaper at the former.
- (C) In other moderately sized cities where measures were taken to make downtowns more accessible for walkers and cyclists, downtown businesses began to thrive.
- (D) If the proposed lane restrictions on drivers are rigorously enforced, more people will likely be attracted to downtown businesses than would otherwise be.
- (E) Most people who own and frequently ride bicycles for recreational purposes live at a significant distance from downtown urban areas.

CR00713

697. Previously, Autoco designed all of its cars itself and then contracted with specialized parts suppliers to build parts according to its specifications. Now it plans to include its suppliers in designing the parts they are to build. Since many parts suppliers have more designers with specialized experience than Autoco has, Autoco expects this shift to reduce the overall time and cost of the design of its next new car.

Which of the following, if true, most strongly supports Autoco's expectation?

- (A) When suppliers provide their own designs, Autoco often needs to modify its overall design.
- (B) In order to provide designs for Autoco, several of the parts suppliers will have to add to their existing staffs of designers.
- (C) Parts and services provided by outside suppliers account for more than 50 percent of Autoco's total costs.
- (D) When suppliers built parts according to specifications provided by Autoco, the suppliers competed to win contracts.
- (E) Most of Autoco's suppliers have on hand a wide range of previously prepared parts designs that can readily be modified for a new car.

CR02830

698. In response to viral infection, the immune systems of mice typically produce antibodies that destroy the virus by binding to proteins on its surface. Mice infected with the herpesvirus generally develop keratitis, a degenerative disease affecting part of the eye. Since proteins on the surface of cells in this part of the eye

closely resemble those on the herpesvirus surface, scientists hypothesize that these cases of keratitis are caused by antibodies to the herpesvirus.

Which of the following, if true, most helps to support the scientists' reasoning?

- (A) Other types of virus have surface proteins that closely resemble proteins found in various organs of mice.
- (B) Mice that are infected with the herpesvirus but do not develop keratitis produce as many antibodies as infected mice that do develop keratitis.
- (C) Mice infected with a new strain of the herpesvirus that has different surface proteins did not develop keratitis.
- (D) Mice that have never been infected with the herpesvirus can sometimes develop keratitis.
- (E) There are mice that are unable to form antibodies in response to herpes infections, and these mice contract herpes at roughly the same rate as other mice.

CR38931.01

699. One might expect that within a particular species, any individuals that managed to slow down the aging process would leave more offspring. Natural selection should therefore favor extreme longevity—but this does not seem to be the case. A possible explanation is that aging is a product of the inevitable wear and tear of living, similar to how household appliances generally accumulate faults that lead to their eventual demise. However, most researchers do not find this analogy satisfactory as an explanation.

Which of the following would, if true, provide the strongest explanation for the researchers' reaction?

- (A) Some organisms are capable of living much longer than other organisms.
- (B) Some organisms reproduce very quickly despite having short lifespans.
- (C) There are several ways of defining "extreme longevity," and according to some definitions it occurs frequently.

- (D) Organisms are capable of maintenance and selfrepair and can remedy much of the damage that they accumulate.
- (E) Some organisms generate much more wear and tear on their bodies than others.

CR02885

700. Last year a record number of new manufacturing jobs were created. Will this year bring another record? Well, any new manufacturing job is created either within an existing company or by the start-up of a new company. Within existing firms, new jobs have been created this year at well below last year's record pace. At the same time, there is considerable evidence that the number of new companies starting up this year will be no higher than it was last year and there is no reason to think that the new companies starting up this year will create more jobs per company than did last year's start-ups. So clearly, the number of new jobs created this year will fall short of last year's record.

In the argument given, the two portions in **boldface** play which of the following roles?

- (A) The first provides evidence in support of the main conclusion of the argument; the second is a claim that the argument challenges.
- (B) The first is a generalization that the argument seeks to establish; the second is a conclusion that the argument draws in order to support that generalization.
- (C) The first is a generalization that the argument seeks to establish; the second is a judgment that has been advanced in order to challenge that generalization.
- (D) The first is presented as an obvious truth on which the argument is based; the second is a claim that has been advanced in support of a position that the argument opposes.
- (E) The first is presented as an obvious truth on which the argument is based; the second is a judgment advanced in support of the main conclusion of the argument.

701. Last year a record number of new manufacturing jobs were created. Will this year bring another record? Well, any new manufacturing job is created either within an existing company or by the start-up of a new company. Within existing firms, new jobs have been created this year at well below last year's record pace. At the same time, there is considerable evidence that the number of new companies starting up will be no higher this year than it was last year and there is no reason to think that the new companies starting up this year will create more jobs per company than did last year's start-ups. So clearly, the number of new jobs created this year will fall short of last year's record.

In the argument given, the two portions in **boldface** play which of the following roles?

- (A) The first is presented as an obvious truth on which the argument is based; the second is the main conclusion of the argument.
- (B) The first is presented as an obvious truth on which the argument is based; the second is a conclusion drawn in order to support the main conclusion of the argument.
- (C) The first and the second each provide evidence in support of the main conclusion of the argument.
- (D) The first is a generalization that the argument seeks to establish; the second is the main conclusion of the argument.
- (E) The first is a generalization that the argument seeks to establish; the second is a conclusion that has been drawn in order to challenge that generalization.

CR00827

702. In Stenland, many workers have been complaining that they cannot survive on minimum wage, the lowest wage an employer is permitted to pay. The government is proposing to raise the minimum wage. Many employers who pay their workers the current minimum wage argue that if it is raised, unemployment will increase because they will no longer be able to afford to employ as many workers.

Which of the following, if true in Stenland, most strongly supports the claim that raising the minimum wage there will not have the effects that the employers predict?

- (A) For any position with wages below a living wage, the difficulty of finding and retaining employees adds as much to employment costs as would raising wages.
- (B) Raising the minimum wage does not also increase the amount employers have to contribute in employee benefits.
- (C) When inflation is taken into account, the proposed new minimum wage is not as high as the current one was when it was introduced.
- (D) Many employees currently being paid wages at the level of the proposed new minimum wage will demand significant wage increases.
- (E) Many employers who pay some workers only the minimum wage also pay other workers wages that are much higher than the minimum.

CR07810

703. Biologists with a predilection for theory have tried—and largely failed—to define what it is that makes something a living thing. Organisms take in energy-providing materials and excrete waste products, but so do automobiles. Living things replicate and take part in evolution, but so do some computer programs. We must be open to the possibility that there are living things on other planets. Therefore, we will not be successful in defining what it is that makes something a living thing merely by examining living things on Earth—the only ones we know. Trying to do so is analogous to trying to specify ______.

Which of the following most logically completes the passage?

- (A) the laws of physics by using pure mathematics
- (B) what a fish is by listing its chemical components
- (C) what an animal is by examining a plant
- (D) what a machine is by examining a sketch of it
- (E) what a mammal is by examining a zebra

CR74541.01

704. For the period from the eighth century through the eleventh century, the shifting boundaries between Kingdom F and Kingdom G have not been well charted. Although a certain village in a border region between the two kingdoms usually belonged to Kingdom G, ninth-century artifacts found in the village were in the typical Kingdom F style of that time. It is unclear whether the village was actually a part of Kingdom F in the ninth century or whether it was a part of Kingdom G but had merely adopted Kingdom F's artistic styles under Kingdom F's cultural influence.

Which of the following would, if found in ninth-century sites in the village, best help in determining whether the village was a part of Kingdom F or Kingdom G in the ninth century?

- (A) A trading contract written in the Kingdom G dialect
- (B) A drawing of a dwelling complex known to have existed on the border of Kingdom F and Kingdom G in the ninth century
- (C) Knives and other utensils made from metal typical of ninth-century mining sites in Kingdom F
- (D) Some fragments of pottery made in the Kingdom G style from the seventh century out of materials only found in Kingdom F
- (E) Numerous teeth from the ninth century with a chemical signature typical only of teeth from people who had grown up in the heart of Kingdom F

CR02829

705. Sammy: For my arthritis, I am going to try my aunt's diet: large amounts of wheat germ and garlic. She was able to move more easily right after she started that diet.

Pat: When my brother began that diet, his arthritis got worse. But he has been doing much better since he stopped eating vegetables in the nightshade family, such as tomatoes and peppers.

Which of the following, if true, would provide a basis for explaining the fact that Sammy's aunt and Pat's brother had contrasting experiences with the same diet?

- (A) A change in diet, regardless of the nature of the change, frequently brings temporary relief from arthritis symptoms.
- (B) The compounds in garlic that can lessen the symptoms of arthritis are also present in tomatoes and peppers.
- (C) Arthritis is a chronic condition whose symptoms improve and worsen from time to time without regard to diet.
- (D) In general, men are more likely to have their arthritis symptoms alleviated by avoiding vegetables in the nightshade family than are women.
- (E) People who are closely related are more likely to experience the same result from adopting a particular diet than are people who are unrelated.

CR05756

706. Infotek, a computer manufacturer in Katrovia, has just introduced a new personal computer model that sells for significantly less than any other model. Market research shows, however, that very few Katrovian households without personal computers would buy a computer, regardless of its price. Therefore, introducing the new model is unlikely to increase the number of computers in Katrovian homes.

Which of the following is an assumption on which the argument depends?

- (A) Infotek achieved the lower price of the new model by using components of lower quality than those used by other manufacturers.
- (B) The main reason cited by consumers in Katrovia for replacing a personal computer is the desire to have an improved model.
- (C) Katrovians in households that already have computers are unlikely to purchase the new Infotek model as an additional computer for home use.
- (D) The price of other personal computers in Katrovia is unlikely to drop below the price of Infotek's new model in the near future.
- (E) Most personal computers purchased in Katrovia are intended for home use.

707. Fast-food restaurants make up 45 percent of all restaurants in Canatria. Customers at these restaurants tend to be young; in fact, studies have shown that the older people get, the less likely they are to eat in fast-food restaurants. Since the average age of the Canatrian population is gradually rising and will continue to do so, the number of fast-food restaurants is likely to decrease.

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

- (A) Fast-food restaurants in Canatria are getting bigger, so each one can serve more customers.
- (B) Some older people eat at fast-food restaurants more frequently than the average young person.
- (C) Many people who rarely eat in fast-food restaurants nevertheless eat regularly in restaurants.
- (D) The overall population of Canatria is growing steadily.
- (E) As the population of Canatria gets older, more people are eating at home.

CR04805

708. Last year a chain of fast-food restaurants, whose menu had always centered on hamburgers, added its first vegetarian sandwich, much lower in fat than the chain's other offerings. Despite heavy marketing, the new sandwich accounts for a very small proportion of the chain's sales. The sandwich's sales would have to quadruple to cover the costs associated with including it on the menu. Since such an increase is unlikely, the chain would be more profitable if it dropped the sandwich.

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

- (A) Although many of the chain's customers have never tried the vegetarian sandwich, in a market research survey most of those who had tried it reported that they were very satisfied with it.
- (B) Many of the people who eat at the chain's restaurants also eat at the restaurants of competing chains and report no strong preference among the competitors.
- (C) Among fast-food chains in general, there has been little or no growth in hamburger sales over the past several years as the range of competing offerings at other restaurants has grown.

- (D) When even one member of a group of diners is a vegetarian or has a preference for low-fat food, the group tends to avoid restaurants that lack vegetarian or low-fat menu options.
- (E) An attempt by the chain to introduce a lower-fat hamburger failed several years ago, since it attracted few new customers and most of the chain's regular customers greatly preferred the taste of the regular hamburgers.

CR03727

709. Transportation expenses accounted for a large portion of the total dollar amount spent on trips for pleasure by residents of the United States in 1997, and about half of the total dollar amount spent on transportation was for airfare. However, the large majority of United States residents who took trips for pleasure in 1997 did not travel by airplane but used other means of transportation.

If the statements above are true, which of the following must also be true about United States residents who took trips for pleasure in 1997?

- (A) Most of those who traveled by airplane did so because the airfare to their destination was lower than the cost of other available means of transportation.
- (B) Most of those who traveled by airplane did so because other means of transportation to their destination were unavailable.
- (C) Per mile traveled, those who traveled by airplane tended to spend more on transportation to their destination than did those who used other means of transportation.
- (D) Overall, people who did not travel by airplane had lower average transportation expenses than people who did.
- (E) Those who traveled by airplane spent about as much, on average, on other means of transportation as they did on airfare.

710. Voters commonly condemn politicians for being insincere, but politicians often must disguise their true feelings when they make public statements. If they expressed their honest views—about, say, their party's policies—then achieving politically necessary compromises would be much more difficult. Clearly, the very insincerity that people decry shows that our government is functioning well.

Which of the following, if true, most seriously undermines this reasoning?

- (A) Achieving political compromises is not all that is necessary for the proper functioning of a government.
- (B) Some political compromises are not in the best long-term interest of the government.
- (C) Voters often judge politicians by criteria other than the sincerity with which they express their views.
- (D) A political party's policies could turn out to be detrimental to the functioning of a government.
- (E) Some of the public statements made by politicians about their party's policies could in fact be sincere.

CR06728

711. To reduce waste of raw materials, the government of Sperland is considering requiring household appliances to be broken down for salvage when discarded. To cover the cost of salvage, the government is planning to charge a fee, which would be imposed when the appliance is first sold. Imposing the fee at the time of salvage would reduce waste more effectively, however, because consumers tend to keep old appliances longer if they are faced with a fee for discarding them.

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

- (A) Increasing the cost of disposing of an appliance properly increases the incentive to dispose of it improperly.
- (B) The fee provides manufacturers with no incentive to produce appliances that are more durable.
- (C) For people who have bought new appliances recently, the salvage fee would not need to be paid for a number of years.

- (D) People who sell their used, working appliances to others would not need to pay the salvage fee.
- (E) Many nonfunctioning appliances that are currently discarded could be repaired at relatively little expense.

CR02866

712. When there is less rainfall than normal, the water level of Australian rivers falls and the rivers flow more slowly. Because algae whose habitat is river water grow best in slow-moving water, the amount of algae per unit of water generally increases when there has been little rain. By contrast, however, following a period of extreme drought, algae levels are low even in very slow-moving river water.

Which of the following, if true, does most to explain the contrast described above?

- (A) During periods of extreme drought, the populations of some of the species that feed on algae tend to fall.
- (B) The more slowly water moves, the more conducive its temperature is to the growth of algae.
- (C) When algae populations reach very high levels, conditions within the river can become toxic for some of the other species that normally live there.
- (D) Australian rivers dry up completely for short intervals in periods of extreme drought.
- (E) Except during periods of extreme drought, algae levels tend to be higher in rivers in which the flow has been controlled by damming than in rivers that flow freely.

713. Increased use of incineration is sometimes advocated as a safe way to dispose of chemical waste. But opponents of incineration point to the 40 incidents involving unexpected releases of dangerous chemical agents that were reported just last year at two existing incinerators commissioned to destroy a quantity of chemical waste material. Since designs for proposed new incinerators include no additional means of preventing such releases, leaks will only become more prevalent if use of incineration increases.

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

- (A) At the two incinerators at which leaks were reported, staff had had only cursory training on the proper procedures for incinerating chemical waste.
- (B) Other means of disposing of chemical waste, such as chemical neutralization processes, have not been proven safer than incineration.
- (C) The capacity of existing incinerators is sufficient to allow for increased incineration of chemical waste without any need for new incinerators.
- (D) The frequency of reports of unexpected releases of chemical agents at newly built incinerators is about the same as the frequency at older incinerators.
- (E) In only three of the reported incidents of unexpected chemical leaks did the releases extend outside the property on which the incinerators were located.

CR10049

714. Public health expert: Increasing the urgency of a public health message may be counterproductive. In addition to irritating the majority who already behave responsibly, it may undermine all government pronouncements on health by convincing people that such messages are overly cautious. And there is no reason to believe that those who ignore measured voices will listen to shouting.

The two sections in boldface play which of the following roles in the public health expert's argument?

(A) The first is a conclusion for which support is provided, but is not the argument's main conclusion; the second is an unsupported premise supporting the argument's main conclusion.

- (B) The first is a premise supporting the only explicit conclusion; so is the second.
- (C) The first is the argument's main conclusion; the second supports that conclusion and is itself a conclusion for which support is provided.
- (D) The first is a premise supporting the argument's only conclusion; the second is that conclusion.
- (E) The first is the argument's only explicit conclusion; the second is a premise supporting that conclusion.

CR01163

715. Several industries have recently switched at least partly from older technologies powered by fossil fuels to new technologies powered by electricity. It is thus evident that less fossil fuel is being used as a result of the operations of these industries than would have been used if these industries had retained their older technologies.

Which of the following, if true, most strengthens the argument above?

- (A) Many of the industries that have switched at least partly to the new technologies have increased their output.
- (B) Less fossil fuel was used to manufacture the machinery employed in the new technologies than was originally used to manufacture the machinery employed in the older technologies.
- (C) More electricity is used by those industries that have switched at least partly to the new technologies than by those industries that have not switched.
- (D) Some of the industries that have switched at least partly to the new technologies still use primarily technologies that are powered by fossil fuels.
- (E) The amount of fossil fuel used to generate the electricity needed to power the new technologies is less than the amount that would have been used to power the older technologies.

716. The difference in average annual income in favor of employees who have college degrees, compared with those who do not have such degrees, doubled between 1980 and 1990. Some analysts have hypothesized that increased competition between employers for employees with college degrees drove up income for such employees.

Which of the following, if true, most seriously undermines the explanation described above?

- (A) During the 1980s a growing percentage of college graduates, unable to find jobs requiring a college degree, took unskilled jobs.
- (B) The average age of all employees increased slightly during the 1980s.
- (C) The unemployment rate changed very little throughout most of the 1980s.
- (D) From 1980 to 1990 the difference in average income between employees with advanced degrees and those with bachelor's degrees also increased.
- (E) During the 1980s there were some employees with no college degree who earned incomes comparable to the top incomes earned by employees with a college degree.

CR01239

717. Which of the following most logically completes the passage?

According to the last pre-election poll in Whippleton, most voters believe that the three problems government needs to address, in order of importance, are pollution, crime, and unemployment. Yet in the election, candidates from parties perceived as strongly against pollution were defeated, while those elected were all from parties with a history of opposing legislation designed to reduce pollution. These results should not be taken to indicate that the poll was inaccurate, however, since ______.

- (A) some voters in Whippleton do not believe that pollution needs to be reduced
- (B) every candidate who was defeated had a strong antipollution record

- (C) there were no issues other than crime, unemployment, and pollution on which the candidates had significant differences of opinion
- (D) all the candidates who were elected were perceived as being stronger against both crime and unemployment than the candidates who were defeated
- (E) many of the people who voted in the election refused to participate in the poll

CR01153

718. Manufacturing plants in Arundia have recently been acquired in substantial numbers by investors from abroad. Arundian politicians are proposing legislative action to stop such investment, justifying the proposal by arguing that foreign investors, opportunistically exploiting a recent fall in the value of the Arundian currency, were able to buy Arundian assets at less than their true value.

Which of the following, if true, casts the most serious doubt on the adequacy of the Arundian politicians' justification for the proposed legislation?

- (A) The Arundian government originally welcomed the fall in the value of the Arundian currency because the fall made Arundian exports more competitive on international markets.
- (B) Foreign investors who acquired Arundian manufacturing plants generally did so with no intention of keeping and running those plants over the long term.
- (C) Without the recent fall in the value of the Arundian currency, many of the Arundian assets bought by foreign investors would have been beyond the financial reach of those investors.
- (D) In Concordia, a country broadly similar to Arundia, the share of manufacturing assets that is foreign-controlled is 60 percent higher than it is in Arundia.
- (E) The true value of an investment is determined by the value of the profits from it, and the low value of the Arundian currency has depressed the value of any profits earned by foreign investors from Arundian assets.

719. Proposed new safety rules for Beach City airport would lengthen considerably the minimum time between takeoffs from the airport. In consequence, the airport would be able to accommodate 10 percent fewer flights than currently use the airport daily. The city's operating budget depends heavily on taxes generated by tourist spending, and most of the tourists come by plane. Therefore, the proposed new safety rules, if adopted, will reduce the revenue available for the operating budget.

The argument depends on assuming which of the following?

- (A) There are no periods of the day during which the interval between flights taking off from the airport is significantly greater than the currently allowed minimum.
- (B) Few, if any, of the tourists who use Beach City airport do so when their main destination is a neighboring community and not Beach City itself.
- (C) If the proposed safety rules are adopted, the reduction in tourist numbers will not result mainly from a reduction in the number of tourists who spend relatively little in Beach City.
- (D) Increasing the minimum time between takeoffs is the only way to achieve necessary safety improvements without a large expenditure by the city government on airport enhancements.
- (E) The response to the adoption of the new safety rules would not include a large increase in the number of passengers per flight.

CR01096

720. The introduction of new drugs into the market is frequently prevented by a shortage of human subjects for the clinical trials needed to show that the drugs are safe and effective. Since the lives and health of people in future generations may depend on treatments that are currently experimental, practicing physicians are morally in the wrong when, in the absence of any treatment proven to be effective, they fail to encourage suitable patients to volunteer for clinical trials.

Which of the following, if true, casts most doubt on the conclusion of the argument?

(A) Many drugs undergoing clinical trials are intended for the treatment of conditions for which there is currently no effective treatment.

- (B) Patients do not share the physician's professional concern for public health, but everyone has a moral obligation to alleviate suffering when able to do so.
- (C) Usually, half the patients in a clinical trial serve as a control group and receive a nonactive drug in place of the drug being tested.
- (D) An experimental drug cannot legally be made available to patients unless those patients are subjects in clinical trials of the drug.
- (E) Physicians have an overriding moral and legal duty to care for the health and safety of their current patients.

CR01285

721. As a construction material, bamboo is as strong as steel and sturdier than concrete. Moreover, in tropical areas bamboo is a much less expensive construction material than either steel or concrete and is always readily available. In tropical areas, therefore, building with bamboo makes better economic sense than building with steel or concrete, except where land values are high.

Which of the following, if true, most helps to explain the exception noted above?

- (A) Buildings constructed of bamboo are less likely to suffer earthquake damage than are steel and concrete buildings.
- (B) Bamboo is unsuitable as a building material for multistory buildings.
- (C) In order to protect it from being damaged by termites and beetles, bamboo must be soaked, at some expense, in a preservative.
- (D) In some tropical areas, bamboo is used to make the scaffolding that is used during large construction projects.
- (E) Bamboo growing in an area where land values are increasing is often cleared to make way for construction.

CR00788

722. Newspaper editors should not allow reporters to write the headlines for their own stories. The reason for this is that, while the headlines that reporters themselves write are often clever, what typically makes them clever is that they allude to little-known information that is familiar to the reporter but that never appears explicitly in the story itself.

Which of the following, if true, most strengthens the argument?

- (A) The reporter who writes a story is usually better placed than the reporter's editor is to judge what the story's most newsworthy features are.
- (B) To write a headline that is clever, a person must have sufficient understanding of the story that the headline accompanies.
- (C) Most reporters rarely bother to find out how other reporters have written stories and headlines about the same events that they themselves have covered.
- (D) For virtually any story that a reporter writes, there are at least a few people who know more about the story's subject matter than does the reporter.
- (E) The kind of headlines that newspaper editors want are those that anyone who has read a reporter's story in its entirety will recognize as clever.

CR03251

723. Scientists have modified feed corn genetically, increasing its resistance to insect pests. Farmers who tried out the genetically modified corn last season applied less insecticide to their corn fields and still got yields comparable to those they would have gotten with ordinary corn. Ordinary corn seed, however, costs less, and what these farmers saved on insecticide rarely exceeded their extra costs for seed. Therefore, for most feed-corn farmers, switching to genetically modified seed would be unlikely to increase profits.

Which of the following would it be most useful to know in order to evaluate the argument?

- (A) Whether there are insect pests that sometimes reduce feed-corn yields, but against which commonly used insecticides and the genetic modification are equally ineffective
- (B) Whether the price that farmers receive for feed corn has remained steady over the past few years
- (C) Whether the insecticides typically used on feed corn tend to be more expensive than insecticides typically used on other crops

- (D) Whether most of the farmers who tried the genetically modified corn last season applied more insecticide than was actually necessary
- (E) Whether, for most farmers who plant feed corn, it is their most profitable crop

CR07318

724. Debater: The average amount of overtime per month worked by an employee in the manufacturing division of the Haglut Corporation is 14 hours. Most employees of the Haglut Corporation work in the manufacturing division. Furthermore, the average amount of overtime per month worked by any employee in the company generally does not fluctuate much from month to month. Therefore, each month, most employees of the Haglut Corporation almost certainly work at least some overtime.

The debater's argument is most vulnerable to criticism on which of these grounds?

- (A) It takes for granted that the manufacturing division is a typical division of the corporation with regard to the average amount of overtime its employees work each month.
- (B) It takes for granted that if a certain average amount of overtime is worked each month by each employee of the Haglut Corporation, then approximately the same amount of overtime must be worked each month by each employee of the manufacturing division.
- (C) It confuses a claim from which the argument's conclusion about the Haglut Corporation would necessarily follow with a claim that would follow from the argument's conclusion only with a high degree of probability.
- (D) It overlooks the possibility that even if, on average, a certain amount of overtime is worked by the members of some group, many members of that group may work no overtime at all.
- (E) It overlooks the possibility that even if most employees of the corporation work some overtime each month, any one corporate employee may, in some months, work no overtime.

725. Proponents of the recently introduced tax on sales of new luxury boats had argued that a tax of this sort would be an equitable way to increase government revenue because the admittedly heavy tax burden would fall only on wealthy people and neither they nor anyone else would suffer any economic hardship. In fact, however, 20 percent of the workers employed by manufacturers of luxury boats have lost their jobs as a direct result of this tax.

The information given, if true, most strongly supports which of the following?

- (A) The market for luxury boats would have collapsed even if the new tax on luxury boats had been lower.
- (B) The new tax would produce a net gain in tax revenue for the government only if the yearly total revenue that it generates exceeds the total of any yearly tax-revenue decrease resulting from the workers' loss of jobs.
- (C) Because many people never buy luxury items, imposing a sales tax on luxury items is the kind of legislative action that does not cost incumbent legislators much popular support.
- (D) Before the tax was instituted, luxury boats were largely bought by people who were not wealthy.
- (E) Taxes can be equitable only if their burden is evenly distributed over the entire population.

CR05191

726. In Wareland last year, 16 percent of licensed drivers under 21 and 11 percent of drivers ages 21–24 were in serious accidents. By contrast, only 3 percent of licensed drivers 65 and older were involved in serious accidents. These figures clearly show that the greater experience and developed habits of caution possessed by drivers in the 65-and-older group make them far safer behind the wheel than the younger drivers are.

Which of the following is an assumption on which the argument depends?

- (A) Drivers 65 and older do not, on average, drive very many fewer miles per year than drivers 24 and younger.
- (B) Drivers 65 and older do not constitute a significantly larger percentage of licensed drivers in Wareland than drivers ages 18–24 do.

- (C) Drivers 65 and older are less likely than are drivers 24 and younger to drive during weather conditions that greatly increase the risk of accidents.
- (D) The difference between the accident rate of drivers under 21 and of those ages 21–24 is attributable to the greater driving experience of those in the older group.
- (E) There is no age bracket for which the accident rate is lower than it is for licensed drivers 65 and older.

CR05614

727. In the past the country of Malvernia has relied heavily on imported oil. Malvernia recently implemented a program to convert heating systems from oil to natural gas. Malvernia currently produces more natural gas each year than it uses, and oil production in Malvernian oil fields is increasing at a steady pace. If these trends in fuel production and usage continue, therefore, Malvernian reliance on foreign sources for fuel is likely to decline soon.

Which of the following would it be most useful to establish in evaluating the argument?

- (A) When, if ever, will production of oil in Malvernia outstrip production of natural gas?
- (B) Is Malvernia among the countries that rely most on imported oil?
- (C) What proportion of Malvernia's total energy needs is met by hydroelectric, solar, and nuclear power?
- (D) Is the amount of oil used each year in Malvernia for generating electricity and fuel for transportation increasing?
- (E) Have any existing oil-burning heating systems in Malvernia already been converted to naturalgas-burning heating systems?

728. Exposure to certain chemicals commonly used in elementary schools as cleaners or pesticides causes allergic reactions in some children. Elementary school nurses in Renston report that the proportion of schoolchildren sent to them for treatment of allergic reactions to those chemicals has increased significantly over the past ten years. Therefore, either Renston's schoolchildren have been exposed to greater quantities of the chemicals, or they are more sensitive to them than schoolchildren were ten years ago.

Which of the following is an assumption on which the argument depends?

- (A) The number of school nurses employed by Renston's elementary schools has not decreased over the past ten years.
- (B) Children who are allergic to the chemicals are no more likely than other children to have allergies to other substances.
- (C) Children who have allergic reactions to the chemicals are not more likely to be sent to a school nurse now than they were ten years ago.
- (D) The chemicals are not commonly used as cleaners or pesticides in houses and apartment buildings in Renston.
- (E) Children attending elementary school do not make up a larger proportion of Renston's population now than they did ten years ago.

CR01854

729. Normally, the pineal gland governs a person's sleep-wake cycle by secreting melatonin in response to the daily cycle of light and darkness as detected by the eye. Nonetheless, many people who are totally blind due to lesions in the visual cortex of the brain easily maintain a 24-hour sleep-wake cycle. So the neural pathway by which the pineal gland receives information from the eye probably does not pass through the visual cortex.

For purposes of evaluating the argument it would be most useful to establish which of the following?

- (A) Whether melatonin supplements help people who have difficulty maintaining a 24-hour sleep cycle to establish such a pattern
- (B) Whether the melatonin levels of most totally blind people who successfully maintain a 24-hour sleep-wake cycle change in response to changes in exposure to light and darkness

- (C) Whether melatonin is the only substance secreted by the pineal gland
- (D) Whether most people who do not have a 24-hour sleep-wake cycle nevertheless have a cycle of consistent duration
- (E) Whether there are any people with normal vision whose melatonin levels respond abnormally to periods of light and darkness

CR00942

730. In countries where automobile insurance includes compensation for whiplash injuries sustained in automobile accidents, reports of having suffered such injuries are twice as frequent as they are in countries where whiplash is not covered.

Presently, no objective test for whiplash exists, so it is true that spurious reports of whiplash injuries cannot be readily identified. Nevertheless, these facts do not

true that spurious reports of whiplash injuries cannot be readily identified. Nevertheless, these facts do not warrant the conclusion drawn by some commentators that in the countries with the higher rates of reported whiplash injuries, half of the reported cases are spurious. Clearly, in countries where automobile insurance does not include compensation for whiplash, people often have little incentive to report whiplash injuries that they actually have suffered.

In the argument given, the two boldfaced portions play which of the following roles?

- (A) The first is a claim that the argument disputes; the second is a conclusion that has been based on that claim.
- (B) The first is a claim that has been used to support a conclusion that the argument accepts; the second is that conclusion.
- (C) The first is evidence that has been used to support a conclusion for which the argument provides further evidence; the second is the main conclusion of the argument.
- (D) The first is a finding whose implications are at issue in the argument; the second is a claim presented in order to argue against deriving certain implications from that finding.
- (E) The first is a finding whose accuracy is evaluated in the argument; the second is evidence presented to establish that the finding is accurate.

731. Last year Comfort Airlines had twice as many delayed flights as the year before, but the number of complaints from passengers about delayed flights went up three times. It is unlikely that this disproportionate increase in complaints was rooted in an increase in overall dissatisfaction with the service Comfort Airlines provides, since the airline made a special effort to improve other aspects of its service last year.

Which of the following, if true, most helps to explain the disproportionate increase in customer complaints?

- (A) Comfort Airlines had more flights last year than the year before.
- (B) Last year a single period of unusually bad weather caused a large number of flights to be delayed.
- (C) Some of the improvements that Comfort Airlines made in its service were required by new government regulations.
- (D) The average length of a flight delay was greater last year than it was the year before.
- (E) The average number of passengers per flight was no higher last year than the year before.

CR01337

732. Last year a global disturbance of weather patterns disrupted harvests in many of the world's important agricultural areas. Worldwide production of soybeans, an important source of protein for people and livestock alike, was not adversely affected, however. Indeed, last year's soybean crop was actually slightly larger than average. Nevertheless, the weather phenomenon is probably responsible for a recent increase in the world price of soybeans.

Which of the following, if true, provides the strongest justification for the attribution of the increase in soybean prices to the weather phenomenon?

- (A) Last year's harvest of anchovies, which provide an important protein source for livestock, was disrupted by the effects of the weather phenomenon.
- (B) Most countries that produce soybeans for export had above-average harvests of a number of food crops other than soybeans last year.
- (C) The world price of soybeans also rose several years ago, immediately after an earlier occurrence of a similar global weather disturbance.
- (D) Heavy rains attributable to the weather phenomenon improved grazing pastures last year,

- allowing farmers in many parts of the world to reduce their dependence on supplemental feed.
- (E) Prior to last year, soybean prices had been falling for several years.

CR03541

733. Most of the year, the hermit thrush, a North American songbird, eats a diet consisting mainly of insects, but in autumn, as the thrushes migrate to their Central and South American wintering grounds, they feed almost exclusively on wild berries. Wild berries, however, are not as rich in calories as insects, yet thrushes need to consume plenty of calories in order to complete their migration. One possible explanation is that berries contain other nutrients that thrushes need for migration and that insects lack.

Which of the following, if true, most seriously calls into question the explanation given for the thrush's diet during migration?

- (A) Hermit thrushes, if undernourished, are unable to complete their autumn migration before the onset of winter.
- (B) Insect species contain certain nutrients that are not found in wild berries.
- (C) For songbirds, catching insects requires the expenditure of significantly more calories than eating wild berries does.
- (D) Along the hermit thrushes' migration routes, insects are abundant throughout the migration season.
- (E) There are some species of wild berries that hermit thrushes generally do not eat, even though these berry species are exceptionally rich in calories.

CR01879

734. The kinds of hand and wrist injuries that result from extended use of a computer while maintaining an incorrect posture are common among schoolchildren in Harnville. Computers are important to the school curriculum there, so instead of reducing the amount their students use computers, teachers plan to bring about a sharp reduction in the number of these injuries by carefully monitoring their students' posture when using computers in the classroom.

Which of the following would it be most useful to know in order to assess the likelihood that the teachers' plan will be successful?

(A) Whether extended use of a computer while maintaining incorrect posture can cause injuries other than hand and wrist injuries

- (B) Whether hand and wrist injuries not caused by computer use are common among schoolchildren in Harnville
- (C) What proportion of schoolchildren in Harnville with hand and wrist injuries use computers extensively outside the classroom
- (D) Whether changes in the curriculum could reduce the schools' dependence on computers
- (E) What proportion of schoolchildren in Harnville already use correct posture while using a computer

735. A certain cultivated herb is one of a group of closely related plants that thrive in soil with high concentrations of metals that are toxic to most other plants. Agronomists studying the growth of this herb have discovered that it produces large amounts of histidine, an amino acid that, in test-tube solutions, renders these metals chemically inert. Hence, the herb's high histidine production must be the key feature that allows it to grow in metal-rich soils.

In evaluating the argument, it would be most important to determine which of the following?

- (A) Whether the herb can thrive in soil that does not have high concentrations of the toxic metals
- (B) Whether others of the closely related group of plants also produce histidine in large quantities
- (C) Whether the herb's high level of histidine production is associated with an unusually low level of production of some other amino acid
- (D) Whether growing the herb in soil with high concentrations of the metals will, over time, reduce their concentrations in the soil
- (E) Whether the concentration of histidine in the growing herb declines as the plant approaches maturity

CR01293

736. Many people suffer an allergic reaction to certain sulfites, including those that are commonly added to wine as preservatives. However, since there are several winemakers who add sulfites to none of the wines they produce, people who would like to drink wine but are allergic to sulfites can drink wines produced by these winemakers without risking an allergic reaction to sulfites.

Which of the following is an assumption on which the argument depends?

- (A) These winemakers have been able to duplicate the preservative effect produced by adding sulfites by means that do not involve adding any potentially allergenic substances to their wine.
- (B) Not all forms of sulfite are equally likely to produce the allergic reaction.
- (C) Wine is the only beverage to which sulfites are commonly added.
- (D) Apart from sulfites, there are no substances commonly present in wine that give rise to an allergic reaction.
- (E) Sulfites are not naturally present in the wines produced by these winemakers in amounts large enough to produce an allergic reaction in someone who drinks these wines.

CR11447

737. A new law gives ownership of patents—documents providing exclusive right to make and sell an invention—to universities, not the government, when those patents result from government-sponsored university research. Administrators at Logos University plan to sell any patents they acquire to corporations in order to fund programs to improve undergraduate teaching.

Which of the following, if true, would cast the most doubt on the viability of the college administrators' plan described above?

- (A) Profit-making corporations interested in developing products based on patents held by universities are likely to try to serve as exclusive sponsors of ongoing university research projects.
- (B) Corporate sponsors of research in university facilities are entitled to tax credits under new federal tax-code guidelines.
- (C) Research scientists at Logos University have few or no teaching responsibilities and participate little if at all in the undergraduate programs in their field.
- (D) Government-sponsored research conducted at Logos University for the most part duplicates research already completed by several profitmaking corporations.
- (E) Logos University is unlikely to attract corporate sponsorship of its scientific research.

738. Since it has become known that several of a bank's top executives have been buying shares in their own bank, the bank's depositors, who had been worried by rumors that the bank faced impending financial collapse, have been greatly relieved. They reason that, since top executives evidently have faith in the bank's financial soundness, those worrisome rumors must be false. Such reasoning might well be overoptimistic, however, since corporate executives have been known to buy shares in their own company in a calculated attempt to dispel negative rumors about the company's health.

In the argument given, the two boldfaced portions play which of the following roles?

- (A) The first describes evidence that has been taken as supporting a conclusion; the second gives a reason for questioning that support.
- (B) The first describes evidence that has been taken as supporting a conclusion; the second states a contrary conclusion that is the main conclusion of the argument.
- (C) The first provides evidence in support of the main conclusion of the argument; the second states that conclusion.
- (D) The first describes the circumstance that the argument as a whole seeks to explain; the second gives the explanation that the argument seeks to establish.
- (E) The first describes the circumstance that the argument as a whole seeks to explain; the second provides evidence in support of the explanation that the argument seeks to establish.

CR03814

739. Between 1980 and 2000 the sea otter population of the Aleutian Islands declined precipitously. There were no signs of disease or malnutrition, so there was probably an increase in the number of otters being eaten by predators. Orcas will eat otters when seals, their normal prey, are unavailable, and the Aleutian Islands seal population declined dramatically in the 1980s. Therefore, orcas were most likely the immediate cause of the otter population decline.

Which of the following, if true, most strengthens the argument?

- (A) The population of sea urchins, the main food of sea otters, has increased since the sea otter population declined.
- (B) Seals do not eat sea otters, nor do they compete with sea otters for food.
- (C) Most of the surviving sea otters live in a bay that is inaccessible to orcas.
- (D) The population of orcas in the Aleutian Islands has declined since the 1980s.
- (E) An increase in commercial fishing near the Aleutian Islands in the 1980s caused a slight decline in the population of the fish that seals use for food.

CR05960

740. Studies in restaurants show that the tips left by customers who pay their bill in cash tend to be larger when the bill is presented on a tray that bears a credit-card logo. Consumer psychologists hypothesize that simply seeing a credit-card logo makes many credit-card holders willing to spend more because it reminds them that their spending power exceeds the cash they have immediately available.

Which of the following, if true, most strongly supports the psychologists' interpretation of the studies?

- (A) The effect noted in the studies is not limited to patrons who have credit cards.
- (B) Patrons who are under financial pressure from their credit-card obligations tend to tip less when presented with a restaurant bill on a tray with a credit-card logo than when the tray has no logo.
- (C) In virtually all of the cases in the studies, the patrons who paid bills in cash did not possess credit cards.
- (D) In general, restaurant patrons who pay their bills in cash leave larger tips than do those who pay by credit card.
- (E) The percentage of restaurant bills paid with a given brand of credit card increases when that credit card's logo is displayed on the tray with which the bill is presented.

741. In an experiment, each volunteer was allowed to choose between an easy task and a hard task and was told that another volunteer would do the other task. Each volunteer could also choose to have a computer assign the two tasks randomly. Most volunteers chose the easy task for themselves and under questioning later said they had acted fairly. But when the scenario was described to another group of volunteers, almost all said choosing the easy task would be unfair. This shows that most people apply weaker moral standards to themselves than to others.

Which of the following is an assumption required by this argument?

- (A) At least some volunteers who said they had acted fairly in choosing the easy task would have said that it was unfair for someone else to do so.
- (B) The most moral choice for the volunteers would have been to have the computer assign the two tasks randomly.
- (C) There were at least some volunteers who were assigned to do the hard task and felt that the assignment was unfair.
- (D) On average, the volunteers to whom the scenario was described were more accurate in their moral judgments than the other volunteers were.
- (E) At least some volunteers given the choice between assigning the tasks themselves and having the computer assign them felt that they had made the only fair choice available to them.

CR08527

742. Country X's recent stock-trading scandal should not diminish investors' confidence in the country's stock market. For one thing, **the discovery of the scandal confirms that Country X has a strong regulatory system**, as the following considerations show. In any stock market, some fraudulent activity is inevitable. If a stock market is well regulated, any significant stock-trading fraud in it will very likely be discovered. This deters potential perpetrators and facilitates improvement in regulatory processes.

In the argument, the portion in boldface plays which of the following roles?

- (A) It is the argument's only conclusion.
- (B) It is a conclusion for which the argument provides support and which itself is used to support the argument's main conclusion.
- (C) It is the argument's main conclusion and is supported by another explicitly stated conclusion for which further support is provided.
- (D) It is an assumption for which no explicit support is provided and is used to support the argument's only conclusion.
- (E) It is a compound statement containing both the argument's main conclusion and an assumption used to support that conclusion.

CR05644

743. Delta Products Inc. has recently switched at least partly from older technologies using fossil fuels to new technologies powered by electricity. The question has been raised whether it can be concluded that for a given level of output Delta's operation now causes less fossil fuel to be consumed than it did formerly. The answer, clearly, is yes, since the amount of fossil fuel used to generate the electricity needed to power the new technologies is less than the amount needed to power the older technologies, provided level of output is held constant.

In the argument given, the two boldfaced portions play which of the following roles?

- (A) The first identifies the content of the conclusion of the argument; the second provides support for that conclusion.
- (B) The first provides support for the conclusion of the argument; the second identifies the content of that conclusion.
- (C) The first states the conclusion of the argument; the second calls that conclusion into question.
- (D) The first provides support for the conclusion of the argument; the second calls that conclusion into question.
- (E) Each provides support for the conclusion of the argument.

744. Theater Critic: The play *La Finestrina*, now at Central Theater, was written in Italy in the eighteenth century. The director claims that this production is as similar to the original production as is possible in a modern theater. Although the actor who plays Harlequin the clown gives a performance very reminiscent of the twentieth-century American comedian Groucho Marx, Marx's comic style was very much within the comic acting tradition that had begun in sixteenth-century Italy.

The considerations given best serve as part of an argument that

- (A) modern audiences would find it hard to tolerate certain characteristics of a historically accurate performance of an eighteenth-century play
- (B) Groucho Marx once performed the part of the character Harlequin in *La Finestrina*
- (C) in the United States the training of actors in the twentieth century is based on principles that do not differ radically from those that underlay the training of actors in eighteenth-century Italy
- (D) the performance of the actor who plays Harlequin in *La Finestrina* does not serve as evidence against the director's claim
- (E) the director of *La Finestrina* must have advised the actor who plays Harlequin to model his performance on comic performances of Groucho Marx

CR0725

745. Although the discount stores in Goreville's central shopping district are expected to close within five years as a result of competition from a SpendLess discount department store that just opened, those locations will not stay vacant for long. In the five years since the opening of Colson's, a nondiscount department store, a new store has opened at the location of every store in the shopping district that closed because it could not compete with Colson's.

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

- (A) Many customers of Colson's are expected to do less shopping there than they did before the SpendLess store opened.
- (B) Increasingly, the stores that have opened in the central shopping district since Colson's opened have been discount stores.
- (C) At present, the central shopping district has as many stores operating in it as it ever had.

- (D) Over the course of the next five years, it is expected that Goreville's population will grow at a faster rate than it has for the past several decades
- (E) Many stores in the central shopping district sell types of merchandise that are not available at either SpendLess or Colson's.

CR05685

746. Last year all refuse collected by Shelbyville city services was incinerated. This incineration generated a large quantity of residual ash. In order to reduce the amount of residual ash Shelbyville generates this year to half of last year's total, the city has revamped its collection program. This year city services will separate for recycling enough refuse to reduce the number of truckloads of refuse to be incinerated to half of last year's number.

Which of the following is required for the revamped collection program to achieve its aim?

- (A) This year, no materials that city services could separate for recycling will be incinerated.
- (B) Separating recyclable materials from materials to be incinerated will cost Shelbyville less than half what it cost last year to dispose of the residual ash.
- (C) Refuse collected by city services will contain a larger proportion of recyclable materials this year than it did last year.
- (D) The refuse incinerated this year will generate no more residual ash per truckload incinerated than did the refuse incinerated last year.
- (E) The total quantity of refuse collected by Shelbyville city services this year will be no greater than that collected last year.

CR01801

747. Veterinarians generally derive some of their income from selling several manufacturers' lines of pet-care products. Knowing that pet owners rarely throw away mail from their pet's veterinarian unread, one manufacturer of pet-care products offered free promotional materials on its products to veterinarians for mailing to their clients. Very few veterinarians accepted the offer, however, even though the manufacturer's products are of high quality.

Which of the following, if true, most helps to explain the veterinarians' reaction to the manufacturer's promotional scheme?

- (A) Most of the veterinarians to whom the free promotional materials were offered were already selling the manufacturer's pet-care products to their clients.
- (B) The special promotional materials were intended as a supplement to the manufacturer's usual promotional activities rather than as a replacement for them.
- (C) The manufacturer's products, unlike most equally good competing products sold by veterinarians, are also available in pet stores and in supermarkets.
- (D) Many pet owners have begun demanding quality in products they buy for their pets that is as high as that in products they buy for themselves.
- (E) Veterinarians sometimes recommend that pet owners use products formulated for people when no suitable product specially formulated for animals is available.

748. The average hourly wage of television assemblers in Vernland has long been significantly lower than that in neighboring Borodia. Since Borodia dropped all tariffs on Vernlandian televisions three years ago, the number of televisions sold annually in Borodia has not changed. However, recent statistics show a drop in the number of television assemblers in Borodia. Therefore, updated trade statistics will probably indicate that the number of televisions Borodia imports annually from Vernland has increased.

Which of the following is an assumption on which the argument depends?

- (A) The number of television assemblers in Vernland has increased by at least as much as the number of television assemblers in Borodia has decreased.
- (B) Televisions assembled in Vernland have features that televisions assembled in Borodia do not have.
- (C) The average number of hours it takes a Borodian television assembler to assemble a television has not decreased significantly during the past three years.

- (D) The number of televisions assembled annually in Vernland has increased significantly during the past three years.
- (E) The difference between the hourly wage of television assemblers in Vernland and the hourly wage of television assemblers in Borodia is likely to decrease in the next few years.

CR05725

749. Guidebook writer: I have visited hotels throughout the country and have noticed that in those built before 1930 the quality of the original carpentry work is generally superior to that in hotels built afterward. Clearly carpenters working on hotels before 1930 typically worked with more skill, care, and effort than carpenters who have worked on hotels built subsequently.

Which of the following, if true, most seriously weakens the guidebook writer's argument?

- (A) The quality of original carpentry in hotels is generally far superior to the quality of original carpentry in other structures, such as houses and stores.
- (B) Hotels built since 1930 can generally accommodate more guests than those built before 1930.
- (C) The materials available to carpenters working before 1930 were not significantly different in quality from the materials available to carpenters working after 1930.
- (D) The better the quality of original carpentry in a building, the less likely that building is to fall into disuse and be demolished.
- (E) The average length of apprenticeship for carpenters has declined significantly since 1930.

750. Scientists typically do their most creative work before the age of forty. It is commonly thought that this happens because aging by itself brings about a loss of creative capacity. However, studies show that of scientists who produce highly creative work beyond the age of forty, a disproportionately large number entered their field at an older age than is usual. Since by the age of forty the large majority of scientists have been working in their field for at least fifteen years, the studies' finding strongly suggests that the real reason why scientists over forty rarely produce highly creative work is not that they have aged but rather that scientists over forty have generally spent too long in their field.

In the argument given, the two portions in boldface play which of the following roles?

- (A) The first is a claim, the accuracy of which is at issue in the argument; the second is a conclusion drawn on the basis of that claim.
- (B) The first is an objection that has been raised against a position defended in the argument; the second is that position.
- (C) The first is evidence that has been used to support an explanation that the argument challenges; the second is that explanation.
- (D) The first is evidence that has been used to support an explanation that the argument challenges; the second is a competing explanation that the argument favors.
- (E) The first provides evidence to support an explanation that the argument favors; the second is that explanation.

CR03818

751. NorthAir charges low fares for its economy-class seats, but it provides very cramped seating and few amenities. Market research shows that economy passengers would willingly pay more for wider seating and better service, and additional revenue provided by these higher ticket prices would more than cover the additional cost of providing these amenities. Even though NorthAir is searching for ways to improve its profitability, it has decided not to make these improvements.

Which of the following, if true, would most help to explain NorthAir's decision in light of its objectives?

- (A) None of NorthAir's competitors offers significantly better seating and service to economy-class passengers than NorthAir does.
- (B) On many of the routes that NorthAir flies, it is the only airline to offer direct flights.
- (C) A few of NorthAir's economy-class passengers are satisfied with the service they receive, given the low price they pay.
- (D) Very few people avoid flying on NorthAir because of the cramped seating and poor service offered in economy class.
- (E) The number of people who would be willing to pay the high fares NorthAir charges for its business-class seats would decrease if its economy-class seating were more acceptable.

CR00774

752. Which of the following most logically completes the argument given?

Asthma, a chronic breathing disorder, is significantly more common today among adult competitive swimmers than it is among competitive athletes who specialize in other sports. Although chlorine is now known to be a lung irritant and swimming pool water is generally chlorinated, it would be rash to assume that frequent exposure to chlorine is the explanation of the high incidence of asthma among these swimmers, since ______.

- (A) young people who have asthma are no more likely to become competitive athletes than are young people who do not have asthma
- (B) competitive athletes who specialize in sports other than swimming are rarely exposed to chlorine
- (C) competitive athletes as a group have a significantly lower incidence of asthma than do people who do not participate in competitive athletics
- (D) until a few years ago, physicians routinely recommended competitive swimming to children with asthma, in the belief that this form of exercise could alleviate asthma symptoms
- (E) many people have asthma without knowing they have it and thus are not diagnosed with the condition until they begin engaging in very strenuous activities, such as competitive athletics

753. In the country of Marut, the Foreign Trade Agency's records were reviewed in 1994 in light of information then newly available about neighboring Goro. The review revealed that in every year since 1963, the agency's projection of what Goro's gross national product (GNP) would be five years later was a serious underestimate. The review also revealed that in every year since 1963, the agency estimated Goro's GNP for the previous year—a Goro state secret—very accurately.

Of the following claims, which is most strongly supported by the statements given?

- (A) Goro's GNP fluctuated greatly between 1963 and 1994.
- (B) Prior to 1995, Goro had not released data intended to mislead the agency in making its five-year projections.
- (C) The amount by which the agency underestimated the GNP it projected for Goro tended to increase over time.
- (D) Even before the new information came to light, the agency had reason to think that at least some of the five-year projections it had made were inaccurate.
- (E) The agency's five-year projections of Goro's GNP had no impact on economic planning in Marut.

CR05082

754. Vargonia has just introduced a legal requirement that student-teacher ratios in government-funded schools not exceed a certain limit. All Vargonian children are entitled to education, free of charge, in these schools. When a recession occurs and average incomes fall, the number of children enrolled in government-funded schools tends to increase. Therefore, though most employment opportunities contract in economic recessions, getting a teaching job in Vargonia's government-funded schools will not be made more difficult by a recession.

Which of the following would be most important to determine in order to evaluate the argument?

- (A) Whether in Vargonia there are any schools not funded by the government that offer children an education free of charge
- (B) Whether the number of qualified applicants for teaching positions in government-funded

- schools increases significantly during economic recessions
- (C) What the current student-teacher ratio in Vargonia's government-funded schools is
- (D) What proportion of Vargonia's workers currently hold jobs as teachers in government-funded schools
- (E) Whether in the past a number of governmentfunded schools in Vargonia have had studentteacher ratios well in excess of the new limit

CR09951

755. In Colorado subalpine meadows, nonnative dandelions co-occur with a native flower, the larkspur. Bumblebees visit both species, creating the potential for interactions between the two species with respect to pollination. In a recent study, researchers selected 16 plots containing both species; all dandelions were removed from eight plots; the remaining eight control plots were left undisturbed. The control plots yielded significantly more larkspur seeds than the dandelion-free plots, leading the researchers to conclude that the presence of dandelions facilitates pollination (and hence seed production) in the native species by attracting more pollinators to the mixed plots.

Which of the following, if true, most seriously undermines the researchers' reasoning?

- (A) Bumblebees preferentially visit dandelions over larkspurs in mixed plots.
- (B) In mixed plots, pollinators can transfer pollen from one species to another to augment seed production.
- (C) If left unchecked, nonnative species like dandelions quickly crowd out native species.
- (D) Seed germination is a more reliable measure of a species' fitness than seed production.
- (E) Soil disturbances can result in fewer blooms, and hence lower seed production.

756. An experiment was done in which human subjects recognize a pattern within a matrix of abstract designs and then select another design that completes that pattern. The results of the experiment were surprising. The lowest expenditure of energy in neurons in the brain was found in those subjects who performed most successfully in the experiments.

Which of the following hypotheses best accounts for the findings of the experiment?

- (A) The neurons of the brain react less when a subject is trying to recognize patterns than when the subject is doing other kinds of reasoning.
- (B) Those who performed best in the experiment experienced more satisfaction when working with abstract patterns than did those who performed less well.
- (C) People who are better at abstract pattern recognition have more energy-efficient neural connections.
- (D) The energy expenditure of the subjects' brains increases when a design that completes the initially recognized pattern is determined.
- (E) The task of completing a given design is more capably performed by athletes, whose energy expenditure is lower when they are at rest.

CR01202

757. With seventeen casinos, Moneyland operates the most casinos in a certain state. Although intent on expanding, it was outmaneuvered by Apex Casinos in negotiations to acquire the Eldorado chain. To complete its acquisition of Eldorado, Apex must sell five casinos to comply with a state law forbidding any owner to operate more than one casino per county. Since Apex will still be left operating twenty casinos in the state, it will then have the most casinos in the state.

Which of the following, if true, most seriously undermines the prediction?

- (A) Apex, Eldorado, and Moneyland are the only organizations licensed to operate casinos in the state.
- (B) The majority of Eldorado's casinos in the state will need extensive renovations if they are to continue to operate profitably.

- (C) Some of the state's counties do not permit casinos.
- (D) Moneyland already operates casinos in the majority of the state's counties.
- (E) Apex will use funds it obtains from the sale of the five casinos to help fund its acquisition of the Eldorado chain.

CR05093

758. It is widely assumed that people need to engage in intellectual activities such as solving crossword puzzles or mathematics problems in order to maintain mental sharpness as they age. In fact, however, simply talking to other people—that is, participating in social interaction, which engages many mental and perceptual skills—suffices. Evidence to this effect comes from a study showing that the more social contact people report, the better their mental skills.

Which of the following, if true, most seriously weakens the force of the evidence cited?

- (A) As people grow older, they are often advised to keep exercising their physical and mental capacities in order to maintain or improve them.
- (B) Many medical conditions and treatments that adversely affect a person's mental sharpness also tend to increase that person's social isolation.
- (C) Many people are proficient both in social interactions and in solving mathematical problems.
- (D) The study did not itself collect data but analyzed data bearing on the issue from prior studies.
- (E) The tasks evaluating mental sharpness for which data were compiled by the study were more akin to mathematics problems than to conversation.

8.6 Answer Key

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|--------|---|------|---|------|---|------|---|
| 610. | В | 648. | В | 686. | С | 724. | D |
| 611. | В | 649. | A | 687. | Α | 725. | В |
| 612. | В | 650. | E | 688. | C | 726. | Α |
| 613. | В | 651. | В | 689. | В | 727. | D |
| 614. | D | 652. | E | 690. | С | 728. | С |
| 615. | D | 653. | D | 691. | D | 729. | В |
| 616. | D | 654. | E | 692. | C | 730. | D |
| 617. | E | 655. | В | 693. | С | 731. | D |
| 618. | C | 656. | Е | 694. | Α | 732. | Α |
| 619. | C | 657. | D | 695. | E | 733. | С |
| 620. | D | 658. | В | 696. | С | 734. | С |
| 621. | A | 659. | A | 697. | E | 735. | В |
| 622. | D | 660. | A | 698. | С | 736. | Ε |
| 623. | В | 661. | E | 699. | D | 737. | D |
| 624. | C | 662. | В | 700. | E | 738. | Α |
| 625. | E | 663. | В | 701. | Α | 739. | С |
| 626. | В | 664. | В | 702. | Α | 740. | В |
| 627. | В | 665. | D | 703. | E | 741. | Α |
| 628. | A | 666. | D | 704. | Ε | 742. | В |
| 629. | A | 667. | E | 705. | С | 743. | В |
| 630. | В | 668. | C | 706. | С | 744. | D |
| 631. | E | 669. | D | 707. | D | 745. | В |
| 632. | C | 670. | В | 708. | D | 746. | D |
| 633. | E | 671. | С | 709. | D | 747. | С |
| 634. | C | 672. | D | 710. | A | 748. | С |
| 635. | C | 673. | C | 711. | Α | 749. | D |
| 636. | A | 674. | C | 712. | D | 750. | Ε |
| 637. | E | 675. | Е | 713. | Α | 751. | Ε |
| 638. | A | 676. | C | 714. | E | 752. | D |
| 639. | D | 677. | D | 715. | Е | 753. | D |
| 640. | D | 678. | A | 716. | Α | 754. | В |
| 641. | D | 679. | D | 717. | D | 755. | Е |
| 642. | C | 680. | D | 718. | E | 756. | C |
| 643. | В | 681. | A | 719. | E | 757. | Α |
| 644. | D | 682. | С | 720. | Е | 758. | В |
| 645. | D | 683. | Е | 721. | В | | |
| 646. | C | 684. | С | 722. | Е | | |
| 647. | E | 685. | В | 723. | D | | |
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