

MATH SECTION

Q1:

The population of City X is 50 percent of the population of City Y.
The population of City X is what percent of the total population of City X and City Y?

- A. 25%
 - B. $(33 \frac{1}{3})\%$
 - C. 40%
 - D. 50%
 - E. $(66 \frac{2}{3})\%$
-

Q2:

What is the greatest prime factor of $2^{100} - 2^{96}$?

- A. 2
 - B. 3
 - C. 5
 - D. 7
 - E. 11
-

Q3:

How many liters of apple juice were added to the cranberry juice in a certain container?

- (1) The amount of apple juice that was added was $\frac{3}{2}$ the amount of cranberry juice in the container.
- (2) There were 5 liters of cranberry juice in the container.

- A. Statement (1) **ALONE** is sufficient, but statement (2) alone is not sufficient.
 - B. Statement (2) **ALONE** is sufficient, but statement (1) alone is not sufficient.
 - C. **BOTH** statements **TOGETHER** are sufficient, but **NEITHER** statement **ALONE** is sufficient.
 - D. **EACH** statement **ALONE** is sufficient.
 - E. Statements (1) and (2) **TOGETHER** are **NOT** sufficient.
-

Q4:

In a demographic study, the population and total income of a certain region were estimated from other data, and both estimates had lower and upper limits. At the time of the estimates, was the per capita income for the region greater than \$16,500?

- (1) The lower limit for the estimate of the population was 330,000 people.

(2) The lower limit for the estimate of the total income was \$5,500,000,000.

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Q5:

Is $|x| < 1$?

(1) $|x + 1| = 2|x - 1|$

(2) $|x - 3| \neq 0$

- A. Statement (1) **ALONE** is sufficient, but statement (2) alone is not sufficient.
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Q6:

A box contains 10 light bulbs, fewer than half of which are defective. Two bulbs are to be drawn simultaneously from the box. If n of the bulbs in box are defective, what is the value of n ?

- (1) The probability that the two bulbs to be drawn will be defective is $1/15$.
- (2) The probability that one of the bulbs to be drawn will be defective and the other will not be defective is $7/15$.

- A. Statement (1) **ALONE** is sufficient, but statement (2) alone is not sufficient.
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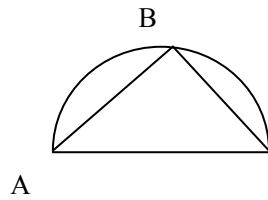
Q7:

There are 11 women and 9 men in a certain club. If the club is to select a committee of 2 women and 2 men, how many different such committees are possible?

- A. 120
- B. 720
- C. 1,060
- D. 1,520

E. 1,980

Q8:



In the figure shown, the triangle is inscribed in the semicircle. If the length of line segment AB is 8 and the length of line segment BC is 6, what is the length of arc ABC?

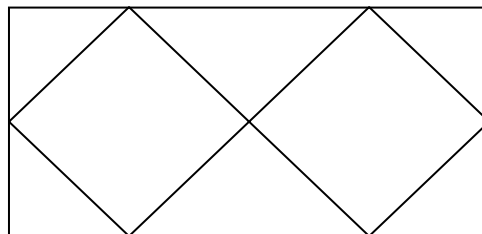
- A. 15π
- B. 12π
- C. 10π
- D. 7π
- E. 5π

Q9:

If $5x = 2y$ and $xy \neq 0$, then is what percent of y ?

- A. 2%
- B. 4%
- C. 10%
- D. 40%
- E. 50%

Q10:



In the figure shown, two identical squares are inscribed in the rectangle. If the perimeter of the rectangle is $18\sqrt{2}$, then what is the perimeter of each square?

- A. $8\sqrt{2}$

- B. 12
- C. $12\sqrt{2}$
- D. 16
- E. 18

Q11:

The product of the units digit, the tens digit, and the hundreds digit of the positive integer m is 96. What is the units digit of m ?

- (1) m is odd.
- (2) The hundreds digit of m is 8.

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Q12:

Division R of Company Q has 1,000 employees. What is the average (arithmetic mean) annual salary of the employees at Company Q?

- (1) The average annual salary of the employees in Division R is \$30,000.
- (2) The average annual salary of the employees at Company Q who are not in Division R is \$35,000.

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- B. Statement (2) **ALONE** is sufficient, but statement (1) alone is not sufficient.
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Q13:

The sequence $a_1, a_2, \dots, a_n, \dots$ is such that $a_n = 2a_{n-1} - x$ for all positive integers $n \geq 2$ and for certain number x . If $a_5 = 99$ and $a_3 = 27$, what is the value of x ?

- A. 3
- B. 9
- C. 18
- D. 36

Q14:

Box W and Box V each contain several blue sticks and red sticks, and all of the red sticks have the same length. The length of each red stick is 18 inches less than the average length of the sticks in Box W and 6 inches greater than the average length of the sticks in Box V. What is the average (arithmetic mean) length, in inches, of the sticks in Box W minus the average length, in inches, of the sticks in Box V?

- A. 3
- B. 6
- C. 12
- D. 18
- E. 24

Q15:

If $x \neq 0$, then $(x + 1/x)^2 - (x - 1/x)^2 =$

- A. $1/x$
- B. x
- C. 1
- D. 2
- E. 4

Q16:

If m , p , and t are positive integers and $m < p < t$, is the product mpt an even integer?

- (1) $t - p = p - m$
- (2) $t - m = 16$

- A. Statement (1) **ALONE** is sufficient, but statement (2) alone is not sufficient.
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Q17:

If a certain coin is flipped, the probability that the coin will land heads is $1/2$. If the coin is flipped 5 times, what is the probability that it will land heads up on the first 3 flips and not on the last 2 flips?

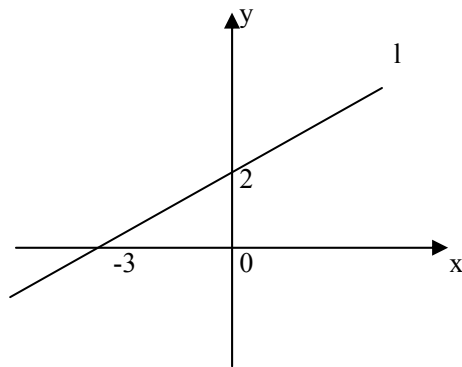
- A. $\frac{3}{5}$
- B. $\frac{1}{2}$
- C. $\frac{1}{5}$
- D. $\frac{1}{8}$
- E. $\frac{1}{32}$

Q18:

The function f is defined by $f(x) = \sqrt{x - 10}$ for all positive numbers x . If $u = f(t)$ for some positive numbers t and u . What is t in terms of u ?

- A. $\sqrt{u+10}$
- B. $(\sqrt{u} + 10)^2$
- C. $\sqrt{u^2+10}$
- D. $(u + 10)^2$
- E. $(u^2 + 10)^2$

Q19:



The graph of which of the following equations is a straight line that is parallel to line l in the figure above?

- A. $3y - 2x = 0$
- B. $3y + 2x = 0$
- C. $3y + 2x = 6$
- D. $2y - 3x = 6$
- E. $2y + 3x = -6$

Q20:

What is the total number of executives at Company P?

- (1) The number of male executives is $\frac{3}{5}$ the number of female executives.
- (2) There are 4 more female executives than male executives.

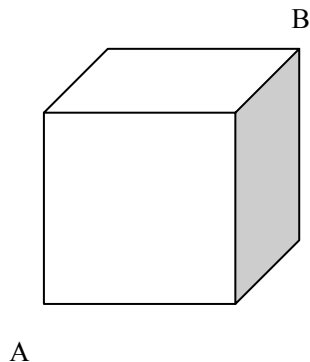
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Q21:

The ratio of the number of boys to the number of girls in a certain school club is 3 : 4. If there are 5 more girls than boys in the club, how many girls are in the club?

- A. 7
 - B. 8
 - C. 12
 - D. 15
 - E. 20
-

Q22:



What is the volume of the cube above?

- (1) The surface area of the cube is 600 square inches.
- (2) The length of diagonal AB is $10\sqrt{3}$ inches.

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Q23:

If x and y are positive integers, and $x^3y^4 = 2,000$, which of the following is the value of xy ?

- A. 2
- B. 4
- C. 8
- D. 10
- E. 20

Q24:

If $ab = 1$, what is the value of $(axb)(ayb)$?

- (1) $ax = by = 2$
- (2) $2xy = 4$

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Q25:

Company P had 15 percent more employees in December than it had in January. If Company P had 460 employees in December, how many employees did it have in January?

- A. 391
- B. 400
- C. 410
- D. 423
- E. 445

Q26:

If positive integer x is a multiple of 6 and positive integer y is a multiple of 14, is xy a multiple of 105?

- (1) x is a multiple of 9.
- (2) y is a multiple of 25.

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Q27:

R, S, T, and U are points on a line, and U is the midpoint of line segment ST. If the lengths of line segments RS, RT, and ST are 20, 4, and 24, respectively. What is the length of line segment RU?

- A. 6
 - B. 8
 - C. 12
 - D. 14
 - E. 16
-

Q28:

Each of the 30 boxes in a certain shipment with either 10 pounds or 20 pounds, and the average (arithmetic mean) weight of the boxes in the shipment is 18 pounds. If the average weight of the boxes in the shipment is to be reduced to 14 pounds by removing some of the 20-pound boxes, how many 20-pound boxes must be removed?

- A. 4
 - B. 6
 - C. 10
 - D. 20
 - E. 24
-

Q29:

The sum of all the integers k such that $-26 < k < 24$ is

- A. 0
 - B. -2
 - C. -25
 - D. -49
 - E. -51
-

Q30:

$$M = \{-6, -5, -4, -3, -2\}$$

$$T = \{-2, -1, 0, 1, 2, 3\}$$

If an integer is to be randomly selected from set M above and an integer is to be randomly selected from set T above, what is the probability that the product of the two integers will be negative?

- A. 0

- B. $\frac{1}{3}$
- C. $\frac{2}{5}$
- D. $\frac{1}{2}$
- E. $\frac{3}{5}$

Q31:

A small, rectangular park has a perimeter of 560 feet and a diagonal measurement of 200 feet. What is its area, in square feet?

- A. 19,200
- B. 19,600
- C. 20,000
- D. 20,400
- E. 20,800

Q32:

Seven different numbers are selected from the integers 1 to 100, and each number is divided by 7. What is the sum of the remainders?

- (1) The range of the seven remainders is 6.
- (2) The seven numbers selected are consecutive integers.

- A. Statement (1) **ALONE** is sufficient, but statement (2) alone is not sufficient.
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Q33:

150, 200, 250, n

Which of the following could be the median of the 4 integers listed above?

- I. 175
 - II. 215
 - III. 235
-
- A. I only
 - B. II only
 - C. I and II only
 - D. II and III only

E. I, II, and III

Q34:

A certain company that sells only cars and trucks reported that revenues from car sales in 1997 were down 11 percent from 1996 and revenues from truck sales in 1997 were up 7 percent from 1996. If total revenues from car sales and truck sales in 1997 were up 1 percent from 1996, what is the ratio of revenue from car sales in 1996 to revenue from truck sales in 1996?

- A. 1 : 2
- B. 4 : 5
- C. 1 : 1
- D. 3 : 2
- E. 5 : 3

Q35:

If $xy \neq 0$ and $x^2y^2 - xy = 6$, which of the following could be y in terms of x ?

- I. $1/(2x)$
- II. $-2/x$
- III. $3/x$

- A. I only
- B. II only
- C. I and II
- D. I and III
- E. II and III

Q36:

If a , b , c , and d are positive integers, is $(a/b)(c/d) > c/b$?

- (1) $c > b$
- (2) $a > d$

- A. Statement (1) **ALONE** is sufficient, but statement (2) alone is not sufficient.
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-

Q37:

In 1995 a certain store had 1,800 tools in stock that had been purchased for \$30 each. If 1,000 of these tools were sold in 1995 for \$40 each and the remaining 800 were sold in 1996 for \$50 each, how many greater was the gross profit on the tools sold in 1996 than the gross profit on those sold in 1995?

- A. \$0
- B. \$6,000
- C. \$8,000
- D. \$32,000
- E. \$40,000

VERBAL SECTION

Q1:

The four-million-year-old fossilized skeleton known as Lucy is so small compared with many other skeletons presumed to be of the same species, and so some paleontologists have argued that Lucy represents a different lineage.

- A. presumed to be of the same species, and so
- B. presumed to be of the same species that
- C. presumed that they are of the same species, and so
- D. that they have presumed to be of the same species, so that
- E. that they have presumed are of the same species, and

Q2:

Hunter: Hunters alone are blamed for the decline in Greenrock National Forest's deer population over the past ten years. Yet clearly, **black bears have also played an important role in this decline.** In the past ten years, the forest's protected black bear population has risen sharply, and examination of black bears found dead in the forest during the deer hunting season showed that a number of them had recently fed on deer.

In the hunter's argument, the boldface portion plays which of the following roles?

- A. It is the main conclusion of the argument.
- B. It is an objection that has been raised against the main conclusion of the argument.
- C. It is a judgment that the argument opposes.
- D. It is a finding that the argument seeks to explain.

- E. It provides evidence in support of the main conclusion of the argument.

Q3:

A study by the Ocean Wildlife Campaign urged states to undertake a number of remedies to reverse a decline in the shark population, which includes the establishment of size limits for shark catches, closing state waters for shark fishing during pupping season, and requiring commercial fishers to have federal shark permits.

- A. which includes the establishment of size limits for shark catches, closing
- B. which includes establishing limits to the size of sharks that can be caught, closing
- C. which include the establishment of size limits for shark catches, the closing of
- D. including establishing size limits for shark catches, closing
- E. including the establishing of limits to the size of sharks that are caught, the closing of

Q4:

Yellow jackets number among the 900 or so species of the world's social wasps, wasps living in a highly cooperative and organized society where they consist almost entirely of females—the queen and her sterile female workers.

- A. wasps living in a highly cooperative and organized society where they consist almost entirely of
- B. wasps that live in a highly cooperative and organized society consisting almost entirely of
- C. which means they live in a highly cooperative and organized society, almost all
- D. which means that their society is highly cooperative, organized, and it is almost entirely
- E. living in a society that is highly cooperative, organized, and it consists of almost all

Q5 to Q7:

In 1994, a team of scientists led by David McKay began studying the meteorite ALH84001, which had been *Line* discovered in Antarctica in 1984.

- (5) Two years later, the McKay team announced that ALH84001, which scientists generally agree originated on Mars, contained compelling evidence that life once existed on Mars.

(10) This evidence includes the discovery of organic molecules in ALH84001,

- the first ever found in Martian rock.
Organic molecules—complex, carbon-based compounds—form the basis for
- (15)terrestrial life. The organic molecules found in ALH84001 are polycyclic aromatic hydrocarbons, or PAH's. When microbes die, their organic material often decays into PAH's.
- (20) Skepticism about the McKay team's claim remains, however. For example, ALH84001 has been on earth for 13,000 years, suggesting to some scientists that its PAH's might have
- (25)resulted from terrestrial contamination. However, McKay's team has demonstrated that the concentration of PAH's increases as one looks deeper into ALH84001, contrary to what one would
- (30)expect from terrestrial contamination. The skeptic's strongest argument, however, is that processes unrelated to organic life can easily produce all the evidence found by McKay's team,
- (35) including PAH's. For example, star formation produces PAH's. Moreover, PAH's frequently appear in other meteorites, and no one attributes their presence to life processes.
- (40) Yet McKay's team notes that the particular combination of PAH's in ALH84001 is more similar to the combinations produced by decaying organisms than to those originating from nonbiological processes.

Q5:

The passage asserts which of the following about the claim that ALH84001 originated on Mars?

- A. It was initially proposed by the McKay team of scientists.
- B. It is not a matter of widespread scientific dispute.
- C. It has been questioned by some skeptics of the McKay team's work.
- D. It has been undermined by recent work on PAH's.
- E. It is incompatible with the fact that ALH84001 has been on Earth for 13,000 years.

Q6:

The primary purpose of the passage is to

- A. describe new ways of studying the possibility that life once existed on Mars
 - B. revise a theory regarding the existence of life on Mars in light of new evidence
 - C. reconcile conflicting viewpoints regarding the possibility that life once existed on Mars
 - D. evaluate a recently proposed argument concerning the origin of ALH84001
 - E. describe a controversy concerning the significance of evidence from ALH84001
-

Q7:

The passage suggests that the fact that ALH84001 has been on earth for 13,000 years has been used by some scientists to support which of the following claims about ALH84001?

- A. ALH84001 may not have originated on Mars.
 - B. ALH84001 contains PAH's that are the result of nonbiological processes.
 - C. ALH84001 may not have contained PAH's when it landed on Earth.
 - D. The organic molecules found in ALH84001 are not PAH's.
 - E. The organic molecules found in ALH84001 could not be the result of terrestrial contamination.
-

Q8:

Which of the following most logically completes the passage?

Garnet and RenCo each provide health care for their employees. Garnet pays for both testing of its employees' cholesterol levels and treatment of high cholesterol. This policy saves Garnet money, since high cholesterol left untreated for many years leads to conditions that require very expensive treatment. However, RenCo does not have the same financial incentive to adopt such a policy, because _____.

- A. early treatment of high cholesterol does not entirely eliminate the possibility of a stroke later in life
- B. the mass media regularly feature stories encouraging people to maintain diets that are low in cholesterol
- C. RenCo has significantly more employees than Garnet has
- D. RenCo's employees are unlikely to have higher cholesterol levels than Garnet's employees
- E. the average length of time an employee stays with RenCo is less than it is with Garnet

Q9:

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 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 given brand of credit card increases when that credit card's logo is displayed on the tray with which the bill is prepared.

Q10:

Antarctica receives more solar radiation than does any other place on Earth, yet the temperatures are so cold and the ice cap is reflective, so that little polar ice melts during the summer; otherwise, the water levels of the oceans would rise 250 feet and engulf most of the world's great cities.

- A. is reflective, so that little polar ice melts during the summer; otherwise,
- B. is so reflective that little of the polar ice melts during the summer; were it to do so,
- C. so reflective that little polar ice melts during the summer, or else
- D. reflective, so that little of the polar ice melts during the summer, or
- E. reflects so that little of the polar ice melts during the summer; if it did

Q11:

Retailers reported moderate gains in their November sales, as much because of their sales of a year earlier being so bad as that shoppers were getting a head start on buying their holiday gifts.

- A. of their sales of a year earlier being so bad as that
- B. of their sales a year earlier having been as bad as because

- C. of their sales a year earlier being as bad as because
- D. their sales a year earlier had been so bad as because
- E. their sales of a year earlier were as bad as that

Q12 to Q15:

In its 1903 decision in the case of *Lone Wolf v. Hitchcock*, the United States Supreme Court rejected the *Line* efforts of three Native American tribes (5) to prevent the opening of tribal lands to non-Indian settlement without tribal consent. In his study of the *Lone Wolf* case, Blue Clark properly emphasizes the Court's assertion (10) of a virtually unlimited unilateral power of Congress (the House of Representatives and the Senate) over Native American affairs. But he fails to note the decision's more far-reaching (15) impact: shortly after *Lone Wolf*, the federal government totally abandoned negotiation and execution of formal written agreements with Indian tribes as a prerequisite for the implemen- (20) tation of federal Indian policy. Many commentators believe that this change had already occurred in 1871 when— following a dispute between the House and the Senate over which (25) chamber should enjoy primacy in Indian affairs—Congress abolished the making of treaties with Native American tribes. But in reality the federal government continued to nego- (30) tiate formal tribal agreements past the turn of the century, treating these documents not as treaties with sovereign nations requiring ratification by the Senate but simply as legislation to be (35) passed by both houses of Congress. The *Lone Wolf* decision ended this era of formal negotiation and finally

did away with what had increasingly become the empty formality of obtaining tribal consent.

Q12:

The author of the passage is primarily concerned with

- A. identifying similarities in two different theories
 - B. evaluating a work of scholarship
 - C. analyzing the significance of a historical event
 - D. debunking a revisionist interpretation
 - E. exploring the relationship between law and social reality
-

Q13:

According to the passage, which of the following was true of relations between the federal government and Native American tribes?

- A. Some Native American tribes approved of the congressional action of 1871 because it simplified their dealings with the federal government.
 - B. Some Native American tribes were more eager to negotiate treaties with the United States after the *Lone Wolf* decision.
 - C. Prior to the *Lone Wolf* decision, the Supreme Court was reluctant to hear cases involving agreements negotiated between Congress and Native American tribes.
 - D. Prior to 1871, the federal government sometimes negotiated treaties with Native American tribes.
 - E. Following 1871, the House exercised more power than did the Senate in the government's dealings with Native American tribes.
-

Q14:

As an element in the argument presented by the author of the passage, the reference to Blue Clark's study of the *Lone Wolf* case serves primarily to

- A. point out that this episode in Native American history has received inadequate attention from scholars
- B. support the contention of the author of the passage that the *Lone Wolf* decision had a greater long-term impact than did the congressional action of 1871
- C. challenge the validity of the Supreme Court's decision confirming the unlimited unilateral power of Congress in Native American affairs
- D. refute the argument of commentators who regard the congressional action of 1871 as the end of the era of formal negotiation between the federal government and Native American tribes
- E. introduce a view about the *Lone Wolf* decision that the author will expand upon

Q15:

According to the passage, which of the following resulted from the *Lone Wolf* decision?

- A. The Supreme Court took on a greater role in Native American affairs.
- B. Native American tribes lost their legal standing as sovereign nations in their dealings with the federal government, but their ownership of tribal lands was confirmed.
- C. The federal government no longer needed to conclude a formal agreement with a Native American tribe in order to carry out policy decisions that affected the tribe.
- D. The federal government began to appropriate tribal lands for distribution to non-Indian settlers.
- E. Native American tribes were no longer able to challenge congressional actions by appealing to the Supreme Court.

Q16:

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 conclude that **Tropicorp has not acted wholly out of economic self-interest**. However, these environmentalists are probably wrong. The initial investment required for a successful rubber-tapping operation is larger than that needed for a cattle ranch. Furthermore, there is a shortage of workers employable in rubber-tapping operations, and finally, taxes are higher on profits from rubber tapping than on profits from cattle ranching.

In the economist's argument, the two **boldfaced** 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 environmentalists' conclusion; the second states that conclusion.
- D. The first states the environmentalists' conclusion; the second states the conclusion of the economist's argument.
- E. Each supports the conclusion of the economist's argument.

Q17:

Brochure: Help conserve our city's water supply. By converting the landscaping in your yard to a water-conserving landscape, you can greatly reduce your outdoor water use. A water-conserving landscape is natural and attractive, and it also saves you money.

Criticism: For most people with yards, the savings from converting to a water-conserving landscape cannot justify the expense of new landscaping, since typically the conversion would save less than twenty dollars on a homeowner's yearly water bills.

Which of the following, if true, provides the best basis for a rebuttal of the criticism?

- A. Even homeowners whose yards do not have water-conserving landscapes can conserve water by installing water-saving devices in their homes.
- B. A conventional landscape generally requires a much greater expenditure on fertilizer and herbicide than does a water-conserving landscape.
- C. A significant proportion of the residents of the city live in buildings that do not have yards.
- D. It costs no more to put in water-conserving landscaping than it does to put in conventional landscaping.
- E. Some homeowners use more water to maintain their yards than they use for all other purposes combined.

Q18:

Which of following most logically completes the argument?

The last members of a now-extinct species of a European wild deer called the giant deer lived in Ireland about 16,000 years ago. Prehistoric cave paintings in France depict this animal as having a large hump on its back. Fossils of this animal, however, do not show any hump. Nevertheless, there is no reason to conclude that the cave paintings are therefore inaccurate in this regard, since _____.

- A. some prehistoric cave paintings in France also depict other animals as having a hump
- B. fossils of the giant deer are much more common in Ireland than in France
- C. animal humps are composed of fatty tissue, which does not fossilize
- D. the cave paintings of the giant deer were painted well before 16,000 years ago
- E. only one currently existing species of deer has any anatomical feature that even remotely resembles a hump

Q19:

Possible long-term consequences of the "greenhouse effect," the gradual warming of the Earth's climate, may include melting the polar ice caps and a rising sea level.

- A. may include melting the polar ice caps and a rising sea level
 - B. may include the melting of polar ice caps and the rising sea level
 - C. may include polar ice caps that are melting and sea levels that are rising
 - D. include melting the polar ice caps and sea levels that are rising
 - E. include melting of the polar ice caps and a rise in sea level
-

Q20:

Shipping Clerk: The five specially ordered shipments sent out last week were sent out on Thursday. Last week, all of the shipments that were sent out on Friday consisted entirely of building supplies, and the shipping department then closed for the weekend. Four shipments were sent to Truax Construction last week, only three of which consisted of building supplies.

If the shipping clerk's statements are true, which of the following must also be true?

- A. At least one of the shipments sent to Truax Construction last week was specially ordered.
- B. At least one of last week's specially ordered shipments did not consist of building supplies.
- C. At least one of the shipments sent to Truax Construction was not sent out on Thursday of last week.
- D. At least one of the shipments that were sent out on Friday of last week was sent to Truax Construction.
- E. At least one of the shipments sent to Truax Construction last week was sent out before Friday.

Q21:

Data gathered by weather satellites has been analyzed by scientists, reporting that the Earth's northern latitudes have become about ten percent greener since 1980, due to more vigorous plant growth associated with warmer temperatures and higher levels of atmospheric carbon dioxide.

- A. Data gathered by weather satellites has been analyzed by scientists, reporting that the Earth's northern latitudes have
- B. Data gathered by weather satellites has been analyzed by scientists, and they report the Earth's northern latitudes as having
- C. After analyzing data gathered by weather satellites, scientists report that the Earth's northern latitudes have
- D. After analysis of data, gathered by weather satellites, scientists report the Earth's northern latitudes as having
- E. After data gathered by weather satellites was analyzed by scientists, who report that the Earth's northern latitudes have

Q22:

On account of a law passed in 1993, making it a crime punishable by imprisonment that a United States citizen hold gold in the form of bullion or coins, immigrants found that on arrival in the United States they had to surrender all of the gold they had brought with them.

- A. On account of a law passed in 1993, making it a crime punishable by imprisonment that a United States citizen hold
- B. With a law passed in 1933 that makes it a crime punishable by imprisonment that a United States citizen hold

- C. A law passed in 1933 that made it a crime punishable by imprisonment for a United States citizen holding
- D. Because of a law passed in 1933 making it a crime punishable by imprisonment for a United States citizen to hold
- E. Due to a law being passed in 1933 that makes it a crime punishable by imprisonment for a United States citizen to hold

Q23 to Q26:

Why firms adhere to or deviate from their strategic plans is poorly understood. However, theory and *Line* limited research suggest that the (5) process through which such plans emerge may play a part. In particular, top management decision-sharing—consensus-oriented, team-based decision-making—may increase the (10) likelihood that firms will adhere to their plans, because those involved in the decision-making may be more committed to the chosen course of action, thereby increasing the likelihood that (15) organizations will subsequently adhere to their plans.

However, the relationship between top management decision-sharing and adherence to plans may be affected (20) by a firm's strategic mission (its fundamental approach to increasing sales revenue and market share, and generating cash flow and short-term profits). At one end of the strategic (25) mission continuum, "build" strategies are pursued when a firm desires to increase its market share and is willing to sacrifice short-term profits to do so. At the other end, "harvest" strategies (30) are used when a firm is willing to sacrifice market share for short-term profitability and cash-flow maximization. Research and theory suggest

that top management decision-sharing
(35) may have a more positive relationship
with adherence to plans among firms
with harvest strategies than among
firms with build strategies. In a study
of strategic practices in several large
(40) firms, managers in harvest strategy
scenarios were more able to adhere
to their business plans. As one of the
managers in the study explained it,
this is partly because “[t]ypically all a
(45) manager has to do [when implementing
a harvest strategy] is that which was
done last year.” Additionally, man-
agers under harvest strategies may
have fewer strategic options than do
(50) those under build strategies; it may
therefore be easier to reach agree-
ment on a particular course of action
through decision-sharing, which will
in turn tend to promote adherence
(55) to plans. Conversely, in a “build”
strategy scenario, individual leader-
ship, rather than decision-sharing,
may promote adherence to plans.
Build strategies—which typically
(60) require leaders with strong perso-
nal visions for a firm’s future, rather
than the negotiated compromise
of the team-based decision—may
be most closely adhered to when
(65) implemented in the context of a clear
strategic vision of an individual leader,
rather than through the practice of
decision-sharing.

Q23:

Which of the following best describes the function of the first sentence (lines 17-24) of the second paragraph of the passage?

- A. To answer a question posed in the first sentence of the passage about why firms adopt particular strategic missions
- B. To refute an argument made in the first paragraph about how top management decision-making affects whether firms will adhere to their strategic plans

- C. To provide evidence supporting a theory introduced in the first paragraph about what makes firms adhere to or deviate from their strategic plans
- D. To qualify an assertion made in the preceding sentence (lines 6-16) about how top management decision-making affects the likelihood that firms will adhere to their strategic plans
- E. To explain a distinction relied on in the second paragraph (lines 17-68) regarding two different kinds of strategic missions

Q24:

The passage cites all of the following as differences between firms using build strategies and firms using harvest strategies EXCEPT

- A. their willingness to sacrifice short-term profits in order to build market share
- B. their willingness to sacrifice building market share in order to increase short-term profitability
- C. the number of strategic options available to their managers
- D. the relative importance they assign to maximizing cash-flow
- E. how likely they are to employ decision-sharing in developing strategic plans

Q25:

The primary purpose of the passage is to

- A. identify some of the obstacles that make it difficult for firms to adhere to their strategic business plans
- B. compare two different theories concerning why firms adhere to or deviate from their strategic plans
- C. evaluate the utility of top management decision-sharing as a method of implementing the strategic mission of a business
- D. discuss the respective advantages and disadvantages of build and harvest strategies among several large firms
- E. examine some of the factors that may affect whether or not firms adhere to their strategic plans

Q26:

The author includes the quotation in lines 44-47 of the passage most probably in order to

- A. lend support to the claim that firms utilizing harvest strategies may be more likely to adhere to their strategic plans
- B. suggest a reason that many managers of large firm prefer harvest strategies to build strategies

- C. provide an example of a firm that adhered to its strategic plan because of the degree of its managers' commitment
- D. demonstrate that managers implementing harvest strategies generally have better strategic options than do managers implementing build strategies
- E. give an example of a large firm that successfully implemented a harvest strategy

Q27:

Competition in the mid-nineteenth century by large western farms gradually caused farmers in Pennsylvania to turn to livestock raising, but before that it was predominantly grain-producing.

- A. Competition in the mid-nineteenth century by large western farms gradually caused farmers in Pennsylvania to turn to livestock raising, but before that it was predominantly grain-producing.
- B. Once predominantly a grain-producing state, competition in the mid-nineteenth century from large western farms gradually was causing Pennsylvania's farmers to turn to livestock raising.
- C. Pennsylvania's farmers were gradually caused to turn to livestock raising by competition from large western farms in the mid-nineteenth century, but before that it was predominantly a grain-producing state.
- D. It was once predominantly grain-producing, but competition in the mid-nineteenth century by large western farms was gradually causing Pennsylvania's farmers to turn to livestock raising.
- E. Pennsylvania was once a predominantly grain-producing state, but competition in the mid-nineteenth century from large western farms gradually caused the state's farmers to turn to livestock raising.

Q28:

The coyote is one of several recent ecological success stories: along with the white-tailed deer, the moose, and other species that are enlarging their natural domains, they have established themselves as supreme adapters in an era when the capability to adjust to the environmental changes wrought by human beings has created a whole new class of dominant large mammals.

- A. they have established themselves as supreme adapters in an era when the capability
- B. they have established themselves as being supreme adapters in an era when being able
- C. it has established itself as a supreme adapter in an era when to be able
- D. it has established itself as being a supreme adapter in an era when its ability
- E. it has established itself as a supreme adapter in an era when the ability

Q29:

Unlike the conviction held by many of her colleagues that genes were relatively simple and static,

Barbara McClintock adhered to her own more complicated ideas about how genes might operate, and in 1983, at the age of 81, was awarded a Nobel Prize for her discovery that the genes in corn are capable of moving from one chromosomal site to another.

- A. Unlike the conviction held by many of her colleagues that genes were relatively simple and static
- B. Although many of her colleagues were of the conviction of genes being relatively simple and static
- C. Contrary to many of her colleagues being convinced that genes were relatively simple and static
- D. Even though many of her colleagues were convinced that genes were relatively simple and static
- E. Even with many of her colleagues convinced of genes being relatively simple and static

Q30:

Today's technology allows manufacturers to make small cars more fuel-efficient now than at any time in their production history.

- A. small cars more fuel-efficient now than at any time in their
- B. small cars that are more fuel-efficient than they were at any time in their
- C. small cars that are more fuel-efficient than those at any other time in
- D. more fuel-efficient small cars than those at any other time in their
- E. more fuel-efficient small cars now than at any time in

Q31:

Although most smoking-related illnesses are caused by inhaling the tar in tobacco smoke, it is addiction to nicotine that prevents most smokers from quitting. In an effort to decrease the incidence of smoking-related illnesses, lawmakers in Sandonia plan to reduce the average quantity of nicotine per cigarette by half over the next five years. Unfortunately, smokers who are already addicted to nicotine tend to react to such reductions by smoking correspondingly more cigarettes.

The information above most strongly supports which of the following predictions about the effects of implementing the Sandonian government's plan?

- A. The average quantity of tar inhaled by Sandonian smokers who are currently addicted to nicotine will probably not decrease during the next five years.
- B. Sandonian smokers who are not already addicted to nicotine will probably also begin to smoke more cigarettes during the next five years than they had previously.
- C. The annual number of Sandonian smokers developing smoking-related illnesses will probably decrease during the next five years.

- D. The proportion of Sandonians attempting to quit smoking who succeed in that attempt will probably decrease during the next five years.
- E. The number of Sandonians who quit smoking during the next five years will probably exceed the number who quit during the last five years.

Q32:

Newspaper editorial:

In an attempt to reduce the crime rate, the governor is getting tough on criminals and making prison conditions harsher. Part of this effort has been to deny inmates the access they formerly had to college-level courses. However, this action is clearly counter to the governor's ultimate goal, since after being released from prison, inmates who had taken such courses committed far fewer crimes overall than other inmates.

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

- A. Not being able to take college-level courses while in prison is unlikely to deter anyone from a crime that he or she might otherwise have committed.
- B. Former inmates are no more likely to commit crimes than are members of the general population.
- C. The group of inmates who chose to take college-level courses were not already less likely than other inmates to commit crimes after being released.
- D. Taking high school level courses in prison has less effect on an inmate's subsequent behavior than taking college-level courses does.
- E. The governor's ultimate goal actually is to gain popularity by convincing people that something effective is being done about crime.

Q33:

Almost a decade after New York State passed laws to protect patients by reducing the grueling hours worked by medical residents, twelve hospitals have been investigated by state medical officials, finding that all twelve consistently break the laws, many residents work longer than 24 hours straight, and that more than half the surgical residents work more than 95 hours a week.

- A. twelve hospitals have been investigated by state medical officials, finding that all twelve consistently break the laws, many residents work longer than 24 hours straight, and that more than half the surgical residents work
- B. an investigation by state medical officials of twelve hospitals have found all twelve consistently breaking the laws, that many residents work longer than 24 hours straight, with more than half the surgical residents working
- C. an investigation of twelve hospitals by state medical officials has found that all twelve consistently break the laws, that many residents work longer than 24 hours straight, and that more than half the surgical residents work

- D. twelve hospitals were investigated by state medical officials who found all twelve breaking the laws, with many residents working longer than 24 hours straight, and more than half the surgical residents work
- E. an investigation by state medical officials has found that, of twelve hospitals, all twelve consistently break the laws, that many residents work longer than 24 hours straight, with more than half the surgical residents working

Q34:

Shoppers in sporting goods stores, unlike in department stores, do very little impulse shopping, not buying a pair of skis and a boomerang when they come in for a basketball, but they leave with a basketball only.

- A. in department stores, do very little impulse shopping, not buying a pair of skis and a boomerang when they come in for a basketball, but they leave with a basketball only
- B. in department stores, shop impulsively very little; someone who comes in for a basketball will leave with a basketball only and not also buy a pair of skis and a boomerang as well
- C. those in department stores, do very little impulse shopping, do not buy a pair of skis and a boomerang when they come in for a basketball, but leave with only a basketball
- D. those in department stores, do very little impulse shopping; someone who comes in for a basketball will leave with a basketball only and not buy a pair of skis and a boomerang as well
- E. department stores, shop impulsively very little; someone will not buy a pair of skis and a boomerang when they come in for a basketball but will leave with only a basketball

Q35 to Q37:

Historians who study European women of the Renaissance try to measure “independence,” “options,” and
Line other indicators of the degree to which
 (5) the expression of women’s individuality was either permitted or suppressed.
 Influenced by Western individualism, these historians define a peculiar form of personhood: an innately bounded
 (10) unit, autonomous and standing apart from both nature and society. An anthropologist, however, would contend that a person can be conceived in ways other than as an “individual.” In many
 (15) societies a person’s identity is not intrinsically unique and self-contained

but instead is defined within a complex web of social relationships.

In her study of the fifteenth-century
(20) Florentine widow Alessandra Strozzi, a
historian who specializes in European
women of the Renaissance attributes
individual intention and authorship of
actions to her subject. This historian
(25) assumes that Alessandra had goals
and interests different from those of her
sons, yet much of the historian's own
research reveals that Alessandra
acted primarily as a champion of her
(30) sons' interests, taking their goals as
her own. Thus Alessandra conforms
more closely to the anthropologist's
notion that personal motivation is
embedded in a social context. Indeed,
(35) one could argue that Alessandra did
not distinguish her personhood from
that of her sons. In Renaissance
Europe the boundaries of the con-
ceptual self were not always firm
(40) and closed and did not necessarily
coincide with the boundaries of
the bodily self.

Q35:

The passage suggests that the historian mentioned in the second paragraph (lines 19-42) would be most likely to agree with which of the following assertions regarding Alessandra Strozzi?

- A. Alessandra was able to act more independently than most women of her time because she was a widow.
- B. Alessandra was aware that her personal motivation was embedded in a social context.
- C. Alessandra had goals and interests similar to those of many other widows in her society.
- D. Alessandra is an example of a Renaissance woman who expressed her individuality through independent action.
- E. Alessandra was exceptional because she was able to effect changes in the social constraints placed upon women in her society.

Q36:

It can be inferred that the author of the passage believes which of the following about the study of Alessandra Strozzi done by the historian mentioned in the second paragraph (lines 19-42)?

- A. Alessandra was atypical of her time and was therefore an inappropriate choice for the subject of the historian's research.
 - B. In order to bolster her thesis, the historian adopted the anthropological perspective on personhood.
 - C. The historian argues that the boundaries of the conceptual self were not always firm and closed in Renaissance Europe.
 - D. In her study, the historian reverts to a traditional approach that is out of step with the work of other historians of Renaissance Europe.
 - E. The interpretation of Alessandra's actions that the historian puts forward is not supported by much of the historian's research.
-

Q37:

In the first paragraph, the author of the passage mentions a contention that would be made by an anthropologist most likely in order to

- A. present a theory that will be undermined in the discussion of a historian's study later in the passage
 - B. offer a perspective on the concept of personhood that can usefully be applied to the study of women in Renaissance Europe
 - C. undermine the view that the individuality of European women of the Renaissance was largely suppressed
 - D. argue that anthropologists have applied the Western concept of individualism in their research
 - E. lay the groundwork for the conclusion that Alessandra's is a unique case among European women of the Renaissance whose lives have been studied by historians
-

Q38:

Kate: The recent decline in numbers of the Tennessee warbler, a North American songbird that migrates each fall to coffee plantations in South America, is due to the elimination of the dense tree cover that formerly was a feature of most South American coffee plantations.

Scott: The population of the spruce budworm, the warbler's favorite prey in North America, has been dropping. This is a more likely explanation of the warbler's decline.

Which of the following, if true, most seriously calls Scott's hypothesis into question?

- A. The numbers of the Baltimore oriole, a songbird that does not eat budworms but is as dependent on South American coffee plantations as is the Tennessee warbler, are declining.
- B. The spruce-budworm population has dropped because of a disease that can infect budworms but not Tennessee warblers.
- C. The drop in the population of the spruce budworm is expected to be only temporary.

- D. Many Tennessee warbler have begun migrating in the fall to places other than traditional coffee plantations.
- E. Although many North American songbirds have declined in numbers, no other species has experienced as great a decline as has the Tennessee warbler.

Q39:

Minivans carry as many as seven passengers and, compared with most sport utility vehicles, cost less, get better gas mileage, allow passengers to get in and out more easily, and have a smoother ride.

- A. Minivans carry as many as seven passengers and, compared with most sport utility vehicles, cost less,
- B. Minivans, which carry as many as seven passengers, compared with most sport utility vehicles, they cost less,
- C. Minivans carry as many as seven passengers, in comparison with most sport utility vehicles, and have a lower cost, they
- D. Minivans, carrying as many as seven passengers, compared with most sport utility vehicles, cost less,
- E. Minivans, which carry as many as seven passengers, compared with most sport utility vehicles the cost is lower, and they

Q40:

Two centuries ago, Tufe Peninsula became separated from the mainland, isolating on the newly formed Tufe Island a population of Turfil sunflowers. This population's descendants grow to be, on average, 40 centimeters shorter than Turfil sunflowers found on the mainland. Tufe Island is significantly drier than Tufe Peninsula was. So the current average height of Tufe's Turfil sunflowers is undoubtedly at least partially attributable to changes in Tufe's environmental conditions.

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

- A. There are no types of vegetation on Tufe Island that are known to benefit from dry conditions.
- B. There were about as many Turfil sunflowers on Tufe Peninsula two centuries ago as there are on Tufe Island today.
- C. The mainland's environment has not changed in ways that have resulted in Turfil sunflowers on the mainland growing to be 40 centimeters taller than they did two centuries ago.
- D. The soil on Tufe Island, unlike that on the mainland, lacks important nutrients that help Turfil sunflowers survive and grow tall in a dry environment.
- E. The 40-centimeter height difference between the Turfil sunflowers on Tufe Island and those on the mainland is the only difference between the two populations.

Q41:

In ancient Thailand, much of the local artisans' creative energy was expended for the creation of Buddha images and when they constructed and decorated the temples that enshrined them.

- A. much of the local artisans' creative energy was expended for the creation of Buddha images and when they constructed and decorated the temples that enshrined them
 - B. much of the local artisans' creative energy was expended on the creation of Buddha images and on construction and decoration of the temples in which they were enshrined
 - C. much of the local artisans' creative energy was expended on the creation of Buddha images as well as constructing and decoration of the temples in which they were enshrined
 - D. creating images of Buddha accounted for much of the local artisans' creative energy, and also constructing and decorating the temples enshrining them
 - E. the creating of Buddha images accounted for much of the local artisans' creative energy as well as construction and decoration of the temples that enshrined them
-

Maths Answers:

1、 B

2、 C

3、 C

4、 E

5、 C

6、 D

7、 E

8、 E

9、 D

10、 B

11、 A

12、 E

13、 A

14、 E

15、 E

16、 E

17、 E

18、 D

19、 A

20、 C

21、 E

22、 D

23、 D

24、 D

25、 B

26、 B

27、 B

28、 D

29、 D

30、 D

31、 A

32、 B

33、 C

34、 A

35、 E

36、 B

37、 B

Verbal Answers:

1、 B

2、 A

3、 D

4、 B

5、 B

6、 E

7、 C

8、 E

9、 B

10、 B

11、 D

12、 C

13、 D

14、 E

15、 E

16、 C

17、 B

18、 C

19、 E

20、 (B?)E

21、 C

22、 D

23、 E

24、 E

25、 E

26、 A

27、 E

28、 E

29、 D

30、 C

31、 A

32、 A

33、 C

34、 D

35、 D

36、 E

37、 B

38、 A

39、 D

40、 C

41、 B
