

## MATH SECTION

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Q1:

A grocer has 400 pounds of coffee in stock, 20 percent of which is decaffeinated. If the grocer buys another 100 pounds of coffee of which 60 percent is decaffeinated, what percent, by weight, of the grocer's stock of coffee is decaffeinated?

- A. 28%
  - B. 30%
  - C. 32%
  - D. 34%
  - E. 40%
- 

Q2:

If 2 different representatives are to be selected at random from a group of 10 employees and if  $p$  is the probability that both representatives selected will be women, is  $p > \frac{1}{2}$ ?

(1) More than  $\frac{1}{2}$  of the 10 employees are women.

(2) The probability that both representatives selected will be men is less than  $\frac{1}{10}$ .

- 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.
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Q3:

If the population of a certain country is 120,256,000 and its land area is 2,998,000 square kilometers, then the population per square kilometer is closest to which of the following?

- A. 4
  - B. 6
  - C. 20
  - D. 40
  - E. 60
- 

Q4:

$$\frac{4.8(10^9)}{1.6(10^3)} =$$

- A.  $30(10^5)$
- B.  $[3(10)]^6$
- C.  $30^5$
- D.  $30(10^6)$
- E.  $3(10^{12})$

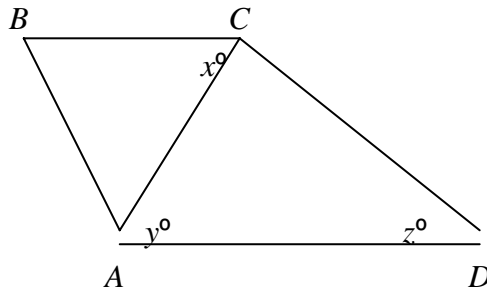
Q5:

If  $vmt \neq 0$ , is  $v^2m^3t^{-4} > 0$ ?

- (1)  $m > v^2$
- (2)  $m > t^{-4}$

- 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.
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Q6:



In the figure shown, line segment  $AD$  is parallel to line segment  $BC$ . What is the value of  $x$ ?

- (1)  $y = 50$
- (2)  $z = 40$

- 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.
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Q7:

A certain university will select 1 of 7 candidates eligible to fill a position in the mathematics department and 2 of 10 candidates eligible to fill 2 identical positions in the computer science department. If none of the candidates is eligible for a position in both departments, how many different sets of 3 candidates are there to fill the 3 positions?

- A. 42
- B. 70
- C. 140
- D. 165
- E. 315

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Q8:

The points  $R$ ,  $T$ , and  $U$  lie on a circle that has radius 4. If the length of arc  $RTU$  is  $\frac{4\pi}{3}$ , what is the length of line segment  $RU$ ?

- A.  $\frac{4}{3}$
- B.  $\frac{8}{3}$
- C. 3
- D. 4
- E. 6

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Q9:

For all integers  $n$ , the function  $f$  is defined by  $f(n) = a^n$ , where  $a$  is a constant. What is the value of  $f(1)$ ?

- (1)  $f(2) = 100$
- (2)  $f(3) = -1,000$

- 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.

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Q10:

What is the value of  $(x - y)^4$ ?

- (1) The product of  $x$  and  $y$  is 7.
- (2)  $x$  and  $y$  are integers.

- 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.
- 

Q11:

Mary persuaded  $n$  friends to donate \$500 each to her election campaign, and then each of these  $n$  friends persuaded  $n$  more people to donate \$500 each to Mary's campaign. If no one donated more than once and if there were no other donations, what was the value of  $n$ ?

- (1) The first  $n$  people donated  $\frac{1}{16}$  of the total amount donated.
- (2) The total amount donated was \$120,000.

- 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.
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Q12:

When  $n$  liters of fuel was added to a tank that was already  $\frac{1}{3}$  full, the tank was filled to  $\frac{7}{9}$  of its capacity. In terms of  $n$ , what is the capacity of the tank, in liters?

- A.  $\frac{10}{9}n$
  - B.  $\frac{4}{3}n$
  - C.  $\frac{3}{2}n$
  - D.  $\frac{9}{4}n$
  - E.  $\frac{7}{3}n$
-

Q13:

If  $n$  is a positive integer, what is the remainder when  $3^{8n+3} + 2$  is divided by 5?

- A. 0
  - B. 1
  - C. 2
  - D. 3
  - E. 4
- 

Q14:

Of all the students in a certain dormitory,  $\frac{1}{2}$  are first-year students and the rest are second-year students. If  $\frac{4}{5}$  of the first-year students have not declared a major and if the fraction of second-year students who have declared a major is 3 times the fraction of first-year students who have declared a major, what fraction of all the students in the dormitory are second-year students who have not declared a major?

- A.  $\frac{1}{15}$
  - B.  $\frac{1}{5}$
  - C.  $\frac{4}{15}$
  - D.  $\frac{1}{3}$
  - E.  $\frac{2}{5}$
- 

Q15:

If  $p$  is the product of the integers from 1 to 30, inclusive, what is the greatest integer  $k$  for which  $3^k$  is a factor of  $p$ ?

- A. 10
  - B. 12
  - C. 14
  - D. 16
  - E. 18
- 

Q16:

If  $x$  and  $y$  are positive, is  $x^3 > y$ ?

(1)  $\sqrt{x} > y$

(2)  $x > y$

- 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.
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Q17:

If  $x$ ,  $y$ , and  $k$  are positive numbers such that  $(\frac{x}{x+y})(10) + (\frac{y}{x+y})(20) = k$  and if  $x < y$ , which of the following could be the value of  $k$ ?

- A. 10
  - B. 12
  - C. 15
  - D. 18
  - E. 30
- 

Q18:

What is the value of the integer  $k$ ?

- (1)  $k + 3 > 0$
- (2)  $k^4 \leq 0$

- 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
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Q19:

Each of the 30 boxes in a certain shipment weighs either 10 pounds or 20 pounds, and 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

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Q20:

Tom, Jane, and Sue each purchased a new house. The average (arithmetic mean) price of the three houses was \$120,000. What was the median price of the three houses?

- (1) The price of Tom's house was \$110,000.
- (2) The price of Jane's house was \$120,000.

- 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.
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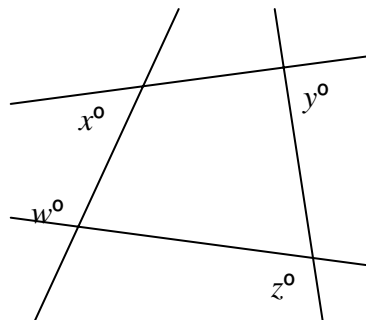
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Q21:

The results of a certain experiment included 6 data values that were all multiples of the same number  $c$ , namely,  $c$ ,  $8c$ ,  $2c$ ,  $5c$ ,  $4c$ , and  $4c$ . Was the average (arithmetic mean) of the 6 data values greater than 8?

- (1)  $c < 4$
- (2)  $c > 2$

- 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.

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Q22:



What is the value of  $x + y$  in the figure above?

- (1)  $w = 95$
- (2)  $z = 125$

- 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.
- 

Q23:

The age of the Earth is approximately  $1.3 \times 10^{17}$  seconds, and one year is approximately  $3.2 \times 10^7$  seconds. Which of the following is closest to the age of the Earth in years?

- A.  $2.5 \times 10^9$   
B.  $4.1 \times 10^9$   
C.  $1.9 \times 10^{10}$   
D.  $2.5 \times 10^{11}$   
E.  $4.1 \times 10^{11}$
- 

Q24:

Four staff members at a certain company worked on a project. The amounts of time that the four staff members worked on the project were in the ratio 2 to 3 to 5 to 6. If one of the four staff members worked on the project for 30 hours, which of the following **CANNOT** be the total number of hours that the four staff members worked on the project?

- A. 80  
B. 96  
C. 160  
D. 192  
E. 240
- 

Q25:

If the sequence  $x_1, x_2, x_3, \dots, x_n, \dots$  is such that  $x_1 = 3$  and  $x_{n+1} = 2x_n - 1$  for  $n \geq 1$ , then  $x_{20} - x_{19} =$

- A.  $2^{19}$   
B.  $2^{20}$   
C.  $2^{21}$   
D.  $2^{20} - 1$   
E.  $2^{21} - 1$
- 

Q26:

If the units digit of the three-digit positive integer  $k$  is nonzero, what is the tens digit of  $k$ ?

- (1) The tens digit of  $k + 9$  is 3.
- (2) The tens digit of  $k + 4$  is 2.

- 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.
- 

Q27:

$$2 + 2 \times 3 + 3 \times 4 =$$

- A. 20
  - B. 24
  - C. 40
  - D. 60
  - E. 96
- 

Q28:

Three printing presses,  $R$ ,  $S$ , and  $T$ , working together at their respective constant rates, can do a certain printing job in 4 hours.  $S$  and  $T$ , working together at their respective constant rates, can do the same job in 5 hours. How many hours would it take  $R$ , working alone at its constant rate, to do the same job?

- A. 8
  - B. 10
  - C. 12
  - D. 15
  - E. 20
- 

Q29:

If  $y$  is the smallest positive integer such that 3,150 multiplied by  $y$  is the square of an integer, then  $y$  must be

- A. 2
  - B. 5
  - C. 6
  - D. 7
  - E. 14
-

Q30:

The total cost of an office dinner was shared equally by  $k$  of the  $n$  employees who attended the dinner. What was the total cost of the dinner?

- (1) Each of the  $k$  employees who shared the cost of the dinner paid \$19.
- (2) If the total cost of the dinner had been shared equally by  $k + 1$  of the  $n$  employees who attended the dinner, each of the  $k + 1$  employees would have paid \$18.

- 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.  
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- 

Q31:

Three of the four vertices of a rectangle in the  $xy$ -coordinate plane are  $(-3, 10)$ ,  $(2, 10)$ , and  $(2, 1)$ . What is the fourth vertex?

- A.  $(-3, 1)$
  - B.  $(-3, 2)$
  - C.  $(-2, 10)$
  - D.  $(2, -3)$
  - E.  $(3, 10)$
- 

Q32:

$r$	$s$	$t$
$u$	$v$	$w$
$x$	$y$	$z$

Each of the letters in the table above represents one of the numbers 1, 2, or 3, and each of these numbers occurs exactly once in each row and exactly once in each column. What is the value of  $r$ ?

- (1)  $v + z = 6$
- (2)  $s + t + u + x = 6$

- 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.  
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Q33:

At a certain school, the ratio of the number of second graders to the number of fourth graders is 8 to 5, and the ratio of the number of first graders to the number of second graders is 3 to 4. If the ratio of the number of third graders to the number of fourth graders is 3 to 2, what is the ratio of the number of first graders to the number of third graders?

- A. 16 to 15
- B. 9 to 5
- C. 5 to 16
- D. 5 to 4
- E. 4 to 5

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Q34:

In the  $xy$ -plane, what is the slope of line  $l$ ?

- (1) Line  $l$  does not intersect the line with equation  $y = 1 - x$ .
- (2) Line  $l$  intersects the line with equation  $y = x - 1$ .

- 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.
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Q35:

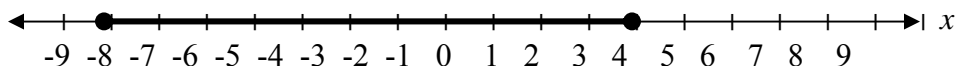
Guy's net income equals his gross income minus his deductions. By what percent did Guy's net income change on January 1, 1989, when both his gross income and his deductions increased?

- (1) Guy's gross income increased by 4 percent on January 1, 1989.
- (2) Guy's deductions increased by 15 percent on January 1, 1989.

- 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.
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Q36:



On the number line, the shaded interval is the graph of which of the following inequalities?

- A.  $|x| \leq 4$
- B.  $|x| \leq 8$
- C.  $|x - 2| \leq 4$
- D.  $|x - 2| \leq 6$
- E.  $|x + 2| \leq 6$

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Q37:

Of the 500 business people surveyed, 78 percent said that they use their laptop computers at home, 65 percent said that they use them in hotels, and 52 percent said that they use them both at home and in hotels. How many of the business people surveyed said that they do not use their laptop computers either at home or in hotels?

- A. 45
  - B. 55
  - C. 65
  - D. 95
  - E. 130
-

## VERBAL SECTION

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Q1:

During her presidency of the short-lived Woman's State Temperance Society (1852-1853), Elizabeth Cady Stanton, as she was a staunch advocate of liberalized divorce laws, scandalized many of her most ardent supporters in her suggestion that drunkenness should be made sufficient cause for divorce.

- A. as she was a staunch advocate of liberalized divorce laws, scandalized many of her most ardent supporters in her suggestion that drunkenness should be
  - B. as she was a staunch advocate for liberalized divorce laws, scandalized many of her most ardent supporters by her suggestion of drunkenness being
  - C. in being a staunch advocate for liberalized divorce laws, had scandalized many of her most ardent supporters with the suggestion of drunkenness being
  - D. a staunch advocate of liberalized divorce laws, scandalized many of her most ardent supporters by suggesting that drunkenness be
  - E. a staunch advocate of liberalized divorce laws, she scandalized many of her most ardent supporters in suggesting that drunkenness should be
- 

Q2:

By merging its two publishing divisions, the company will increase their share of the country's \$21 billion book market from 6 percent to 10 percent, a market ranging from obscure textbooks to mass-market paperbacks.

- A. their share of the country's \$21 billion book market from 6 percent to 10 percent, a market ranging
  - B. from 6 percent to 10 percent its share of the \$21 billion book market in the country, which ranges
  - C. to 10 percent from 6 percent in their share of the \$21 billion book market in the country, a market ranging
  - D. in its share, from 6 percent to 10 percent, of the \$21 billion book market in the country, which ranges
  - E. to 10 percent from 6 percent its share of the country's \$21 billion book market, which ranges
- 

Q3:

A product that represents a clear technological advance over competing products can generally command a high price. Because **technological advances tend to be quickly surpassed** and companies want to make large profits while they still can, many companies charge the greatest price the market will bear when they have such a product. But **large profits on the new product will give competitors a strong incentive to**

**quickly match the new product's capabilities.** Consequently, the strategy to maximize overall profit from a new product is to charge less than the greatest possible price.

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

- A. The first is an assumption that forms the basis for a course of action that the argument criticizes; the second presents the course of action endorsed by the argument.
- B. The first is a consideration raised to explain the appeal of a certain strategy; the second is a consideration raised to call into question the wisdom of adopting that strategy.
- C. The first is an assumption that has been used to justify a certain strategy; the second is a consideration that is used to cast doubt on that assumption.
- D. The first is a consideration raised in support of a strategy the argument endorses; the second presents grounds in support of that consideration.
- E. The first is a consideration raised to show that adopting a certain strategy is unlikely to achieve the intended effect; the second is presented to explain the appeal of that strategy.

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**Q4 to Q6:**

The fields of antebellum (pre-Civil War) political history and women's history use separate sources and focus on separate issues. Political historians, examining sources such as voting records, newspapers, and politicians' writings, focus on the emergence in the 1840's of a new "American political nation," and since women were neither voters nor politicians, they receive little discussion. Women's historians, meanwhile, have shown little interest in the subject of party politics, instead drawing on personal papers, legal records such as wills, and records of female associations to illuminate women's domestic lives, their moral reform activities, and the emergence of the woman's rights movement.

However, most historians have underestimated the extent and significance of women's political allegiance in the antebellum period. For example, in the presidential election campaigns of the 1840's, the Virginia Whig party strove to win the allegiance of Virginia's

- women by inviting them to rallies and speeches. According to Whig propaganda, women who turned out at the party's rallies gathered information that enabled them to mold party-loyal families, reminded men of moral values that transcended party loyalty, and conferred moral standing on the party.
- (35) Virginia Democrats, in response, began to make similar appeals to women as well. By the mid-1850's the inclusion of women in the rituals of party politics had become commonplace, and the ideology that justified such inclusion had been assimilated by the Democrats.
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Q4:

The primary purpose of the passage as a whole is to

- A. examine the tactics of antebellum political parties with regard to women
  - B. trace the effect of politics on the emergence of the woman's rights movement
  - C. point out a deficiency in the study of a particular historical period
  - D. discuss the ideologies of opposing antebellum political parties
  - E. contrast the methodologies in two differing fields of historical inquiry
- 

Q5:

According to the second paragraph of the passage (lines 20-42), Whig propaganda included the assertion that

- A. women should enjoy more political rights than they did
  - B. women were the most important influences on political attitudes within a family
  - C. women's reform activities reminded men of important moral values
  - D. women's demonstrations at rallies would influence men's voting behavior
  - E. women's presence at rallies would enhance the moral standing of the party
- 

Q6:

According to the passage, which of the following was true of Virginia Democrats in the mid-1850's?

- A. They feared that their party was losing its strong moral foundation.
- B. They believed that the Whigs' inclusion of women in party politics had led to the Whigs' success in many elections.
- C. They created an ideology that justified the inclusion of women in party politics.

- D. They wanted to demonstrate that they were in support of the woman's rights movement.
- E. They imitated the Whigs' efforts to include women in the rituals of party politics.

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Q7:

A recent review of pay scales indicates that CEO's now earn an average of 419 times more pay than blue-collar workers, compared to a ratio of 42 times in 1980.

- A. that CEO's now earn an average of 419 times more pay than blue-collar workers, compared to a ratio of 42 times
- B. that, on average, CEO's now earn 419 times the pay of blue-collar workers, a ratio that compares to 42 times
- C. that, on average, CEO's now earn 419 times the pay of blue-collar workers, as compared to 42 times their pay, the ratio
- D. CEO's who now earn on average 419 times more pay than blue-collar workers, as compared to 42 times their pay, the ratio
- E. CEO's now earning an average of 419 times the pay of blue-collar workers, compared to the ratio of 42 times

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Q8:

The 32 species that make up the dolphin family are closely related to whales and in fact include the animal known as the killer whale, which can grow to be 30 feet long and is famous for its aggressive hunting pods.

- A. include the animal known as the killer whale, which can grow to be 30 feet long and is
- B. include the animal known as the killer whale, growing as big as 30 feet long and
- C. include the animal known as the killer whale, growing up to 30 feet long and being
- D. include the animal known as the killer whale, which can grow as big as 30 feet long and is
- E. include the animal known as the killer whale, which can grow to be 30 feet long and it is

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**Q9 to Q12:**

Over the last 150 years, large stretches of salmon habitat have been eliminated by human activity:

*Line* mining, livestock grazing, timber  
(5) harvesting, and agriculture as well as recreational and urban development. The numerical effect is obvious: there are fewer salmon

- (10) in degraded regions than in pristine ones; however, habitat loss also has the potential to reduce genetic diversity. This is most evident in cases where it results in the extinction of entire salmon
- (15) populations. Indeed, most analysts believe that some kind of environmental degradation underlies the demise of many extinct salmon populations.
- (20) Although some rivers have been recolonized, the unique genes of the original populations have been lost.
- (25) Large-scale disturbances in one locale also have the potential to alter the genetic structure of populations in neighboring areas, even if those areas have pristine habitats. Why? Although the
- (30) homing instinct of salmon to their natal stream is strong, a fraction of the fish returning from the sea (rarely more than 15 percent) stray and spawn in nearby
- (35) streams. Low levels of straying are crucial, since the process provides a source of novel genes and a mechanism by which a location can be
- (40) repopulated should the fish there disappear. Yet high rates of straying can be problematic because misdirected fish may interbreed with the existing stock
- (45) to such a degree that any local adaptations that are present become diluted. Straying rates remain relatively low when environmental conditions are
- (50) stable, but can increase dramatically when streams suffer severe disturbance. The 1980 volcanic eruption of Mount Saint Helens, for example, sent mud and debris

- (55) into several tributaries of the Columbia River. For the next couple of years, steelhead trout (a species included among the salmonids) returning from the
- (60) sea to spawn were forced to find alternative streams. As a consequence, their rates of straying, initially 16 percent, rose to more than 40 percent
- (65) overall.
- Although no one has quantified changes in the rate of straying as a result of the disturbances caused by humans, there is no
- (70) reason to suspect that the effect would be qualitatively different than what was seen in the aftermath of the Mount Saint Helens eruption. Such a dramatic
- (75) increase in straying from damaged areas to more pristine streams results in substantial gene flow, which can in turn lower the overall fitness of subsequent generations.

---

Q9:

The primary purpose of the passage is to

- A. argue against a conventional explanation for the extinction of certain salmon populations and suggest an alternative
- B. correct a common misunderstanding about the behavior of salmon in response to environmental degradation caused by human activity
- C. compare the effects of human activity on salmon populations with the effects of natural disturbances on salmon populations
- D. differentiate the particular effects of various human activities on salmon habitats
- E. describe how environmental degradation can cause changes in salmon populations that extend beyond a numerical reduction

---

Q10:

It can be inferred from the passage that the occasional failure of some salmon to return to their natal streams in order to spawn provides a mechanism by which

- A. pristine streams that are near polluted streams become polluted themselves
  - B. the particular adaptations of a polluted stream's salmon population can be preserved without dilution
  - C. the number of salmon in pristine habitats decreases relative to the number in polluted streams
  - D. an environmentally degraded stream could be recolonized by new salmon populations should the stream recover
  - E. the extinction of the salmon populations that spawn in polluted streams is accelerated
- 

Q11:

According to the passage, human activity has had which of the following effects on salmon populations?

- A. An increase in the size of salmon populations in some previously polluted rivers
  - B. A decline in the number of salmon in some rivers
  - C. A decrease in the number straying salmon in some rivers
  - D. A decrease in the gene flow between salmon populations that spawn in polluted streams and populations that spawn in pristine streams
  - E. A decline in the vulnerability of some salmon populations to the effects of naturally occurring habitat destruction
- 

Q12:

The author mentions the "aftermath of the Mount Saint Helens eruption" (lines 73-74) most likely in order to

- A. provide an example of the process that allows the repopulation of rivers whose indigenous salmon population has become extinct
  - B. indicate the extent to which the disturbance of salmon habitat by human activity in one stream might affect the genetic structure of salmon populations elsewhere
  - C. provide a standard of comparison against which the impact of human activity on the gene flow among salmon populations should be measured
  - D. show how salmon's homing instinct can be impaired as a result of severe environmental degradation of their natal streams
  - E. show why straying rates in salmon populations remain generally low except when spawning streams suffer severe environmental disturbance
- 

Q13:

In the United States, of the people who moved from one state to another when they retired, the percentage who retired to Florida has decreased by three percentage points over the past ten years. Since many local businesses in Florida cater to retirees, this decline is likely to have a noticeably negative economic effect on these businesses.

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

- A. Florida attracts more people who move from one state to another when they retire than does any other state.
- B. The number of people who move out of Florida to accept employment in other states has increased over the past ten years.
- C. There are far more local businesses in Florida that cater to tourists than there are local businesses that cater to retirees.
- D. The total number of people who retired and moved to another state for their retirement has increased significantly over the past ten years.
- E. The number of people who left Florida when they retired to live in another state was greater last year than it was ten years ago.

---

Q14:

That the application of new technology can increase the productivity of existing coal mines is demonstrated by the case of Tribnia's coal industry. Coal output per miner in Tribnia is double what it was five years ago, even though no new mines have opened.

Which of the following can be properly concluded from the statement about coal output per miner in the passage?

- A. If the number of miners working in Tribnian coal mines has remained constant in the past five years, Tribnia's total coal production has doubled in that period of time.
- B. Any individual Tribnian coal mine that achieved an increase in overall output in the past five years has also experienced an increase in output per miner.
- C. If any new coal mines had opened in Tribnia in the past five years, then the increase in output per miner would have been even greater than it actually was.
- D. If any individual Tribnian coal mine has not increased its output per miner in the past five years, then that mine's overall output has declined or remained constant.
- E. In Tribnia the cost of producing a given quantity of coal has declined over the past five years.

---

Q15:

In parts of South America, vitamin-A deficiency is a serious health problem, especially among children. In one region, agriculturists are attempting to improve nutrition by encouraging farmers to plant a new variety of sweet potato called SPK004 that is rich in beta-carotene, which the body converts into vitamin A. The plan has good chances of success, since sweet potato is a staple of the region's diet and agriculture, and the varieties currently grown contain little beta-carotene.

Which of the following, if true, most strongly supports the prediction that the plan will succeed?

- A. The growing conditions required by the varieties of sweet potato currently cultivated in the region are conditions in which SPK004 can flourish.
  - B. The flesh of SPK004 differs from that of the currently cultivated sweet potatoes in color and texture, so traditional foods would look somewhat different when prepared from SPK004.
  - C. There are no other varieties of sweet potato that are significantly richer in beta-carotene than SPK004 is.
  - D. The varieties of sweet potato currently cultivated in the region contain some important nutrients that are lacking in SPK004.
  - E. There are other vegetables currently grown in the region that contain more beta-carotene than the currently cultivated varieties of sweet potato do.
- 

Q16:

Soaring television costs accounted for more than half the spending in the presidential campaign of 1992, a greater proportion than it was in any previous election.

- A. a greater proportion than it was
  - B. a greater proportion than
  - C. a greater proportion than they have been
  - D. which is greater than was so
  - E. which is greater than it has been
- 

Q17:

The spacing of the four holes on a fragment of a bone flute excavated at a Neanderthal campsite is just what is required to play the third through sixth notes of the diatonic scale—the seven-note musical scale used in much of Western music since the Renaissance. Musicologists therefore hypothesize that the diatonic musical scale was developed and used thousands of years before it was adopted by Western musicians.

Which of the following, if true, most strongly supports the hypothesis?

- A. Bone flutes were probably the only musical instrument made by Neanderthals.
  - B. No musical instrument that is known to have used a diatonic scale is of an earlier date than the flute found at the Neanderthal campsite.
  - C. The flute was made from a cave-bear bone and the campsite at which the flute fragment was excavated was in a cave that also contained skeletal remains of cave bears.
  - D. Flutes are the simplest wind instrument that can be constructed to allow playing a diatonic scale.
  - E. The cave-bear leg bone used to make the Neanderthal flute would have been long enough to make a flute capable of playing a complete diatonic scale.
- 

Q18:

It is illegal to advertise prescription medications in Hedland except in professional medical journals or by mail directly to physicians. A proposed law would allow general advertising of prescription medications. Opponents object that, in general, laypersons lack the specialized knowledge to evaluate such advertisements and might ask their physicians for inappropriate medications. But since physicians have the final say as to whether to prescribe a medication for a patient, the objection provides no grounds for concern.

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

- A. Whether nonprescription medications can interact with and block the action of any prescription medications that could be advertised to the general public
- B. Whether most prescription medication advertisements directed at the general public would be advertisements for recently developed medications newly available by prescription
- C. Whether prescription medication advertisements directed at the general public would appear on television and radio as well as in print
- D. Whether physicians are more likely to pay attention to advertising directed to the general public than to advertising directed to physicians
- E. Whether physicians are likely to succumb to pressure from patients to prescribe inappropriate medications

---

Q19:

Recently physicians have determined that stomach ulcers are not caused by stress, alcohol, or rich foods, but a bacterium that dwells in the mucous lining of the stomach.

- A. not caused by stress, alcohol, or rich foods, but
- B. not caused by stress, alcohol, or rich foods, but are by
- C. caused not by stress, alcohol, or rich foods, but by
- D. caused not by stress, alcohol, and rich foods, but
- E. caused not by stress, alcohol, and rich foods, but are by

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Q20:

Rivaling the pyramids of Egypt or even the ancient cities of the Maya as an achievement, the army of terra-cotta warriors created to protect Qin Shi Huang, China's first emperor, in his afterlife is more than 2,000 years old and took 700,000 artisans more than 36 years to complete them.

- A. took 700,000 artisans more than 36 years to complete them
- B. took 700,000 artisans more than 36 years to complete it
- C. took 700,000 artisans more than 36 years to complete
- D. 700,000 artisans took more than 36 years to complete
- E. to complete them too 700,000 artisans more than 36 years

---

Q21:

That twenty-one ceramic dog figurines were discovered during the excavating of a 1,000-year-old Hohokam village in Tempe, Arizona, has nearly doubled the number of these artifacts known to exist.

- A. That twenty-one ceramic dog figurines were discovered during the excavating
- B. Twenty-one ceramic dog figurines discovered at the excavation
- C. Discovering twenty-one ceramic dog figurines at the excavating
- D. Ceramic dog figurines, twenty-one of which were discovered during excavating
- E. The discovery of twenty-one ceramic dog figurines during the excavation

---

Q22:

City Official: At City Hospital, uninsured patients tend to have shorter stays and fewer procedures performed than do insured patients, even though insured patients, on average, have slightly less serious medical problems at the time of admission to the hospital than uninsured patients have. Critics of the hospital have concluded that **the uninsured patients are not receiving proper medical care**. However, **this conclusion is almost certainly false**. Careful investigation has recently shown two things: insured patients have much longer stays in the hospital than necessary, and they tend to have more procedures performed than are medically necessary.

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

- A. The first states the conclusion of the city official's argument; the second provides support for that conclusion.
- B. The first is used to support the conclusion of the city official's argument; the second states that conclusion.
- C. The first was used to support the conclusion drawn by hospital critics; the second states the position that the city official's argument opposes.
- D. The first was used to support the conclusion drawn by hospital critics; the second provides support for the conclusion of the city official's argument.
- E. The first states the position that the city official's argument opposes; the second states the conclusion of the city official's argument.

---

Q23:

Past assessments of the Brazilian rain forest have used satellite images to tally deforested areas, where farmers and ranchers have clear-cut and burned all the trees, but such work has not addressed either logging, which is the removal of only selected trees, as well as surface fires, burning down individual trees but do not denude the forest.

- A. which is the removal of only selected trees, as well as surface fires, burning

- B. which removes only selected trees, or surface fires that burn
  - C. which removes only selected trees, along with surface fires that burn
  - D. removing only selected trees, or surface fires, burning
  - E. removing only selected trees, as well as surface fires that burn
- 

Q24:

By sucking sap from the young twigs of the hemlock tree, tree growth is retarded by the woolly adelgid, causing needles to change color from deep green to grayish green and to drop prematurely.

- A. tree growth is retarded by the woolly adelgid, causing needles to change color from deep green to grayish green and to drop
  - B. tree growth is retarded by the woolly adelgid, and this causes the color of needles to change from deep green to grayish green, and their dropping
  - C. the woolly adelgid retards tree growth, which causes needles to change color from deep green to grayish green, and dropping
  - D. the woolly adelgid retards tree growth, causing needles to change color from deep green to grayish green and to drop
  - E. the woolly adelgid retards tree growth, and this causes the color of needles to change from deep green to grayish green, and the their dropping
- 

**Q25 to Q28:**

Recently biologists have been interested in a tide-associated periodic behavior displayed by the diatom *Hantzschia virgata*, a microscopic golden-brown alga that inhabits that portion of a shoreline washed by tides (the intertidal zone). Diatoms of this species, sometimes called “commuter” diatoms, remain burrowed in the sand during high tide, and emerge on the sand surface during the daytime low tide. Just before the sand is inundated by the rising tide, the diatoms burrow again. Some scientists hypothesize that commuter diatoms know that it is low tide because they sense an environmental change, such as an alteration in temperature or a change in pressure caused by tidal movement. However, when diatoms are observed under constant conditions

- in a laboratory, they still display periodic behavior, continuing to burrow on schedule for several weeks.
- (25) This indicates that commuter diatoms, rather than relying on environmental cues to keep time, possess an internal pacemaker or biological clock
- (30) that enables them to anticipate periodic changes in the environment. A commuter diatom has an unusually accurate biological clock, a consequence of the unrelenting
- (35) environmental pressures to which it is subjected; any diatoms that do not burrow before the tide arrives are washed away.
- (40) This is not to suggest that the period of this biological clock is immutably fixed. Biologists have concluded that even though a diatom does not rely on the environment to keep time, environmental
- (45) factors—including changes in the tide’s hydrostatic pressure, salinity, mechanical agitation, and temperature—can alter the period of its biological clock according to
- (50) changes in the tidal cycle. In short, the relation between an organism’s biological clock and its environment is similar to that between a wristwatch and its owner: the owner cannot
- (55) make the watch run faster or slower, but can reset the hands. However, this relation is complicated in intertidal dwellers such as commuter diatoms by the fact that these organisms are
- (60) exposed to the solar-day cycle as well as to the tidal cycle, and sometimes display both solar-day and tidal periods in a single behavior. Commuter diatoms, for example,
- (65) emerge only during those low tides that occur during the day.

---

Q25:

The passage suggests which of the following about the accuracy of the commuter diatom's biological clock?

- A. The accuracy of the commuter diatom's biological clock varies according to changes in the tidal cycle.
- B. The unusual accuracy that characterizes the commuter diatom's biological clock is rare among intertidal species.
- C. The commuter diatom's biological clock is likely to be more accurate than the biological clock of a species that is subject to less intense environmental pressures.
- D. The commuter diatom's biological clock tends to be more accurate than the biological clocks of most other species because of the consistency of the tidal cycle.
- E. The accuracy of the commuter diatom's biological clock tends to fluctuate when the diatom is observed under variable laboratory conditions.

---

Q26:

The author of the passage compares the relationship between an organism's biological clock and its environment to the relation between a wristwatch and its owner most probably in order to

- A. point out a fundamental difference between the function of biological clocks in organisms and the use of mechanical clocks by humans
- B. illustrate the way in which the period of an organism's biological clock can be altered by environmental factors
- C. suggest that there are important similarities between the biological clock in organisms such as the commuter diatom and the biological clock in humans
- D. support an argument regarding the methods used by certain organisms to counteract the influence of the environment on their biological clocks
- E. question the accuracy of the biological clock in organisms such as the commuter diatom

---

Q27:

According to the passage, the periodic behavior displayed by commuter diatoms under constant laboratory conditions is characterized by which of the following?

- A. Greater unpredictability than the corresponding behavior under natural conditions
- B. A consistent periodic schedule in the short term
- C. No difference over the long term from the corresponding behavior under natural conditions
- D. Initial variability caused by the constant conditions of the laboratory
- E. Greater sensitivity to environmental factors than is the case under natural conditions

---

Q28:

The primary purpose of the passage is to

- A. dispute the influence of environmental factors on the tide-associated behavioral rhythms displayed by the diatom *Hantzschia virgata*
- B. describe how certain tide-associated behavioral rhythms displayed by the diatom *Hantzschia virgata* have changed over time
- C. compare tide-associated behavioral rhythms to solar-day behavioral rhythms in the diatom *Hantzschia virgata*
- D. examine how certain biological and environmental influences affect the tide-associated behavioral rhythms displayed by the diatom *Hantzschia virgata*
- E. identify certain environmental factors that limit the effectiveness of the biological clock in the diatom *Hantzschia virgata*

---

Q29:

Faulty voting equipment, confusing ballots, voter error, and problems at polling places have been cited by a new study of the 2000 United States presidential election, which estimated that they did not count 4 million to 6 million of the 100 million votes cast.

- A. Faulty voting equipment, confusing ballots, voter error, and problems at polling places have been cited by a new study of the 2000 United States presidential election, which estimated that they did not count 4 million to 6 million of the 100 million votes cast.
- B. Citing faulty voting equipment, confusing ballots, voter error, and problems at polling places, a new study of the 2000 United States presidential election has estimated that 4 million to 6 million of the 100 million votes cast were not counted.
- C. Citing faulty voting equipment, confusing ballots, voter error, and problems at polling places, 4 million to 6 million of the 100 million votes cast were not counted in the 2000 United States presidential election, a new study estimates.
- D. A new study has cited faulty voting equipment, confusing ballots, voter error, and problems at polling places in estimating that 4 million to 6 million of the 100 million votes that were cast had not been counted in the 2000 United States presidential election.
- E. A new study of the 2000 United States presidential election, citing faulty voting equipment, confusing ballots, voter error, and problems at polling places, has estimated 4 million to 6 million votes had not been counted of the 100 million votes cast.

---

Q30:

The ancient Anasazi harvested such native desert vegetation as the purple-flowered bee plant, what they now commonly call wild spinach in northern Arizona and other parts of the southwestern United States.

- A. what they now commonly call
  - B. a plant that they now commonly call
  - C. now commonly called
  - D. and is now commonly called
  - E. which it is now commonly called
- 

Q31:

Which of the following most logically completes the argument below?

Davison River farmers are currently deciding between planting winter wheat this fall or spring wheat next spring. Winter wheat and spring wheat are usually about equally profitable. Because of new government restrictions on the use of Davison River water for irrigation, per acre yields for winter wheat, though not for spring wheat, would be much lower than average. Therefore, planting spring wheat will be more profitable than planting winter wheat, since \_\_\_\_\_.

- A. the smaller-than-average size of a winter wheat harvest this year would not be compensated for by higher winter wheat prices
  - B. new crops of spring wheat must be planted earlier than the time at which standing crops of winter wheat are ready to be harvested
  - C. the spring wheat that farmers in the Davison River region plant is well adapted to the soil of the region
  - D. spring wheat has uses that are different from those of winter wheat
  - E. planting spring wheat is more profitable than planting certain other crops, such as rye
- 

Q32:

To develop more accurate population forecasts, demographers have to know a great deal more than now about the social and economic determinants of fertility.

- A. have to know a great deal more than now about the social and economic
  - B. have to know a great deal more than they do now about the social and economical
  - C. would have to know a great deal more than they do now about the social and economical
  - D. would have to know a great deal more than they do now about the social and economic
  - E. would have to know a great deal more than now about the social and economical
- 

Q33:

A company plans to develop a prototype weeding machine that uses cutting blades with optical sensors and microprocessors that distinguish weeds from crop plants by

differences in shade of color. The inventor of the machine claims that it will reduce labor costs by virtually eliminating the need for manual weeding.

Which of the following is a consideration in favor of the company's implementing its plan to develop the prototype?

- A. There is a considerable degree of variation in shade of color between weeds of different species.
- B. The shade of color of some plants tends to change appreciably over the course of their growing season.
- C. When crops are weeded manually, overall size and leaf shape are taken into account in distinguishing crop plants from weeds.
- D. Selection and genetic manipulation allow plants of virtually any species to be economically bred to have a distinctive shade of color without altering their other characteristics.
- E. Farm laborers who are responsible for the manual weeding of crops carry out other agricultural duties at times in the growing season when extensive weeding is not necessary.

---

Q34:

Although people in France consume fatty foods at a rate comparable to the United States, their death rates from heart disease are far lower in France.

- A. people in France consume fatty foods at a rate comparable to the United States, their
- B. people in France and the United States consume fatty foods at about the same rate, the
- C. fatty foods are consumed by people in France at a comparable rate to the United States's, their
- D. the rate of fatty foods consumed in France and the United States is about the same, the
- E. the rate of people consuming fatty foods is about the same in France and the United States, the

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**Q35 to Q37:**

- In corporate purchasing, competitive scrutiny is typically limited to suppliers of items that are directly related to end products.
- Line* (5) With "indirect" purchases (such as computers, advertising, and legal services), which are not directly related to production, corporations often favor "supplier partnerships"

- (10) (arrangements in which the purchaser forgoes the right to pursue alternative suppliers), which can inappropriately shelter suppliers from rigorous competitive scrutiny
- (15) that might afford the purchaser economic leverage. There are two independent variables—availability of alternatives and ease of changing suppliers—that companies should
- (20) use to evaluate the feasibility of subjecting suppliers of indirect purchases to competitive scrutiny. This can create four possible situations.
- (25) In Type 1 situations, there are many alternatives and change is relatively easy. Open pursuit of alternatives—by frequent competitive bidding, if possible—will
- (30) likely yield the best results. In Type 2 situations, where there are many alternatives but change is difficult—as for providers of employee health-care benefits—it
- (35) is important to continuously test the market and use the results to secure concessions from existing suppliers. Alternatives provide a credible threat to suppliers, even if
- (40) the ability to switch is constrained. In Type 3 situations, there are few alternatives, but the ability to switch without difficulty creates a threat that companies can use to negotiate
- (45) concessions from existing suppliers. In Type 4 situations, where there are few alternatives and change is difficult, partnerships may be unavoidable.

---

Q35:

Which of the following best describes the relation of the second paragraph to the first?

- A. The second paragraph offers proof of an assertion made in the first paragraph.

- B. The second paragraph provides an explanation for the occurrence of a situation described in the first paragraph.
- C. The second paragraph discusses the application of a strategy proposed in the first paragraph.
- D. The second paragraph examines the scope of a problem presented in the first paragraph.
- E. The second paragraph discusses the contradictions inherent in a relationship described in the first paragraph.

-----  
Q36:

Which of the following can be inferred about supplier partnerships, as they are described in the passage?

- A. They cannot be sustained unless the goods or services provided are available from a large number of suppliers.
- B. They can result in purchasers paying more for goods and services than they would in a competitive-bidding situation.
- C. They typically are instituted at the urging of the supplier rather than the purchaser.
- D. They are not feasible when the goods or services provided are directly related to the purchasers' end products.
- E. They are least appropriate when the purchasers' ability to change suppliers is limited.

-----  
Q37:

According to the passage, which of the following factors distinguishes an indirect purchase from other purchases?

- A. The ability of the purchasing company to subject potential suppliers of the purchased item to competitive scrutiny
- B. The number of suppliers of the purchased item available to the purchasing company
- C. The methods of negotiation that are available to the purchasing company
- D. The relationship of the purchased item to the purchasing company's end product
- E. The degree of importance of the purchased item in the purchasing company's business operations

-----  
Q38:

Retail sales rose 8/10 of 1 percent in August, intensifying expectations that personal spending in the July-September quarter more than doubled that of the 1.4 percent growth rate in personal spending for the previous quarter.

- A. that personal spending in the July-September quarter more than doubled that of
- B. that personal spending in the July-September quarter would more than double

- C. of personal spending in the July-September quarter, that it more than doubled
  - D. of personal spending in the July-September quarter, more than doubling that of
  - E. of personal spending in the July-September quarter, that it would more than double that of
- 

Q39:

Which of the following most logically completes the passage below?

Heavy rains during Centralia's corn planting season prevented some farmers there from planting corn. It is now the planting season for soybeans, another of Centralia's principal crops, and those fields originally intended for corn are dry enough for planting. Nonetheless, even though soybean prices are unusually high at present, the farmers will leave most of these fields empty rather than plant them with soybeans, since \_\_\_\_\_.

- A. the extensive rains have led to an increase in the price of corn
  - B. some Centralian farmers anticipate serious financial losses due to the extremely wet spring planting season
  - C. chemicals that were used to prepare the fields for corn planting would stunt the growth of soybeans
  - D. the majority of Centralia's corn farmers were able to plant corn as they had intended, despite the wet planting season
  - E. many Centralian farmers grow both corn and soybeans
- 

Q40:

Until now, only injectable vaccines against influenza have been available. Parents are reluctant to subject children to the pain of injections, but adults, who are at risk of serious complications from influenza, are commonly vaccinated. A new influenza vaccine, administered painlessly in a nasal spray, is effective for children. However, since children seldom develop serious complications from influenza, no significant public health benefit would result from widespread vaccination of children using the nasal spray.

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

- A. Any person who has received the injectable vaccine can safely receive the nasal-spray vaccine as well.
  - B. The new vaccine uses the same mechanism to ward off influenza as injectable vaccines do.
  - C. The injectable vaccine is affordable for all adults.
  - D. Adults do not contract influenza primarily from children who have influenza.
  - E. The nasal spray vaccine is not effective when administered to adults.
-

Q41:

Leaching, the recovery of copper from the drainage water of mines, as a method of the extraction of minerals, it was well established as early as the eighteenth century, but until about 25 years ago miners did not realize that bacteria take an active part in the process.

- A. as a method of the extraction of minerals, it was well established
  - B. as a method of the extraction of minerals well established
  - C. was a well-established method of mineral extraction
  - D. was a well-established method of extracting mineral that was
  - E. had been a method of mineral extraction, well established
- 

**Maths Answers:**

1. A 2. E 3. D 4. A 5.  
D 6. A 7. E 8. D 9. B 10.  
C 11. D 12. D 13. E 14. B 15.  
C 16. E 17. D 18. B 19. D 20.  
B 21. B 22. C 23. B 24. D 25.  
A 26. A 27. A 28. E 29. E 30. C  
31. A 32. D 33. E 34. A 35.  
E 36. E 37. A

**Verbal Answer:**

1. D 2. E 3. B 4. C 5. E  
6. E 7. B 8. A 9. E 10. D  
11. B 12. C 13. D 14. A 15. A  
16. C 17. E 18. E 19. C 20. B  
21. E 22. E 23. B 24. D 25. C  
26. B 27. B 28. D 29. B 30. C  
31. A 32. E 33. D 34. B 35. C  
36. B 37. E 38. B 39. C 40. D  
41. C

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