SECTION 2

Time - 30 Minutes
25 Questions

Following each problem in this section, there are five suggested answers. Work each problem in your head or in the blank space provided at the right of the page. Then look at the five suggested answers and decide which one is best.

Note: Figures that accompany problems in this section are drawn as accurately as possible EXCEPT when it is stated in a specific problem that its figure is not drawn to scale.

Sample Problem:

$$\begin{array}{r} 5{,}413 \\ -\ 4{,}827 \\ \hline \end{array}$$

(A) 586
(B) 596
(C) 696
(D) 1,586
(E) 1,686

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1. If all the sides in the polygon in Figure 1 are of equal length and its perimeter is 28, what is the length of one side?
   (A) 2
   (B) 3
   (C) 4
   (D) 6
   (E) 7

USE THIS SPACE FOR FIGURING.

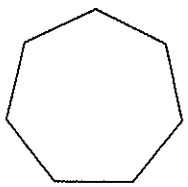

Figure 1

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2. Each person contributed the same amount toward a gift. If $60 was collected, which CANNOT be the amount each gave?
   (A) $0.50
   (B) $5.00
   (C) $9.00
   (D) $15.00
   (E) $30.00

GO ON TO THE NEXT PAGE.

3. N is a whole number between 1 and 5. N is also between 3 and 6. Which is N?

USE THIS SPACE FOR FIGURING. **2**

(A) 2
(B) 3
(C) 3.5
(D) 4
(E) 5

4. Of the following, 0.49×81 is closest to

(A) $\frac{1}{2}$ of 80
(B) $\frac{1}{2}$ of 90
(C) $\frac{1}{4}$ of 80
(D) $\frac{1}{4}$ of 90
(E) 4 times 80

Questions 5-6 refer to the graph in Figure 2.

5. How many more history books than science books are there?

(A) 2
(B) 602
(C) 1,200
(D) 1,800
(E) 6,000

LIBRARY BOOK COLLECTION

Each  represents 600 books.	
Fiction	
History	
Biography	
Science	

Figure 2

6. The number of fiction books is how many times the number of biographies?

(A) 2
(B) 3
(C) 6
(D) 200
(E) 1,800

7. All of the following are greater than $\frac{1}{2}$ EXCEPT

USE THIS SPACE FOR FIGURING.

2

(A) $\frac{101}{200}$

(B) $\frac{17}{33}$

(C) $\frac{7}{12}$

(D) $\frac{600}{1000}$

(E) $\frac{24}{50}$

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8. For what price is 20 percent off the same as $20 off?

(A) $1
(B) $10
(C) $100
(D) $1,000
(E) It is never the same.

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9. In Figure 3, the sides of squares *PQTV* and *QRST* are equal. Starting at *P*, travelling along the sides of the squares, which path is longest?

(A) *P* to *Q* to *R* to *S*
(B) *P* to *Q* to *S* to *R*
(C) *P* to *Q* to *T* to *S*
(D) *P* to *V* to *Q* to *S*
(E) *P* to *V* to *T* to *S*

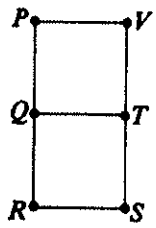

Figure 3

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10. If $\frac{1}{4}$ of a number is greater than 8, the number must be

(A) less than 2
(B) equal to 2
(C) less than 32
(D) equal to 32
(E) greater than 32

11. To which of the following is 6.06 closest?

USE THIS SPACE FOR FIGURING. **2**

(A) 61
(B) 7
(C) 6.7
(D) 6.6
(E) 6

12. With 3 weeks remaining before the recycling van comes, Al has collected 23 more cans than Bob. If Bob is to collect more cans than Al, he must average at least how many more cans per week than Al?

(A) $7\frac{2}{3}$
(B) 8
(C) 24
(D) 69
(E) 70

13. In the triangle in Figure 4, what is the value of x?

(A) 30
(B) 40
(C) 45
(D) 60
(E) It cannot be determined from the information given.

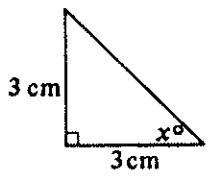

Figure 4

14. If $5 \times (P + Q) = 30$ and P is greater than zero, then Q could NOT be

(A) 7
(B) 4
(C) $3\frac{1}{2}$
(D) 0
(E) -2

15. The sale of a certain product increased from 25 thousand units sold in 1992 to 5 million units sold in 1996. The number of units sold in 1996 was how many times the number sold in 1992?

USE THIS SPACE FOR FIGURING. **2**

(A) 5
(B) 20
(C) 200
(D) 500
(E) 2,000

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16. In Figure 5, the distance from P to S is 60, and the distances from P to Q and from R to S are equal. If the distance from Q to R is half the distance from P to Q, how far apart are P and Q?

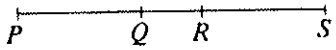

Figure 5

(A) 4
(B) 20
(C) 24
(D) 30
(E) 60

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17. The bottom of the box of salt shown in Figure 6 is flat. Which of the following best represents all of the points where the box touches the paper?

(A) 

(B) 

(C) 

(D) 

(E) 

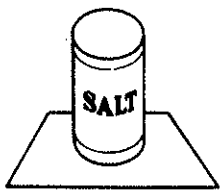

Figure 6

22. If S is the sum of two consecutive integers, which of the following is always true?

USE THIS SPACE FOR FIGURING. **2**

(A) S is positive.
(B) S is negative.
(C) S is even.
(D) S is odd.
(E) S is greater than either number.

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23. A basketball player made exactly 80 percent of the shots she was allowed in a foul-shooting contest. She missed the first shot and then made 14 in a row. If she made 2 of her remaining shots and missed the rest, which of the following must be true?

I. She had 20 shots in all.
II. She missed 3 of her remaining shots.
III. She made 40 percent of her remaining shots.

(A) None
(B) III only
(C) I and II only
(D) II and III only
(E) I, II, and III

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24. Each of the members in the AZ club may bring up to 4 guests to a party. What is the maximum number of members and guests who might attend the party?

(A) $x + 4$
(B) $4x$
(C) $4x + 4$
(D) $5x$
(E) $5x + 4$

USE THIS SPACE FOR FIGURING.

2

25. Ann's stock was worth $28\frac{1}{4}$ a share when the stock market opened for the day and its value went down $\frac{3}{8}$ during the day. If the amounts are in dollars, how many dollars were her 40 shares of stock worth at the end of the day?

(A) $1{,}080\frac{7}{8}$
(B) 1,085
(C) 1,115
(D) 1,125
(E) 1,155

STOP

IF YOU FINISH BEFORE TIME IS CALLED,
YOU MAY CHECK YOUR WORK ON THIS SECTION ONLY.
DO NOT TURN TO ANY OTHER SECTION IN THE TEST.