

SECTION 1

Time – 30 Minutes

25 Questions

Each problem in this section contains five suggested answers. Work out the problem in your head or in the space provided at the right side of the page. Then choose the best answer.

Sample Question:

$300 - 550 =$	(A) 250
	(B) 350
	(C) 850
	(D) -250
	(E) -850
	ANSWER: D

1. $10 + 15 - 24 =$

USE THIS SPACE FOR FIGURING.

- (A) 0
- (B) 1
- (C) 2
- (D) 3
- (E) 4

2. What is the perimeter of the square shown in Figure 1?

- (A) 2
- (B) 4
- (C) 6
- (D) 8
- (E) 12



Figure 1

-
3. How many odd numbers are there between the numbers 0 and 10?

USE THIS SPACE FOR FIGURING.

- (A) 3
(B) 4
(C) 5
(D) 6
(E) 7
-

4. Which of the following sets of numbers is in the right order, from smallest to largest?

- (A) 1, 2, 2.5, 3, -5
(B) 1, 3.1, 2, 4, 5
(C) -1, 0, 4, -6, 8
(D) 1, 2, 0.3, 0.4, 0.5
(E) 3, 5, 7, 9, 9.1
-

5. Sam had 3 van models, 4 truck models, and 6 racecar models. Today, his father gave him one model of each type. How many models does he have in his collection now?

- (A) 16
(B) 17
(C) 18
(D) 19
(E) 20
-

6. If the polygon in Figure 2 is equal-sided and its perimeter is 24, what is the length of each side?

- (A) 3
(B) 3.5
(C) 4
(D) 4.5
(E) 5

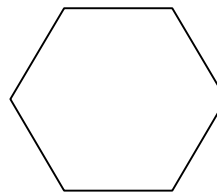


Figure 2

7. According to the graph in Figure 3, how many more TV's did Jack sell in 2005 than in 2003?

- (A) 0
- (B) 3
- (C) 5
- (D) 7
- (E) 20

USE THIS SPACE FOR FIGURING.

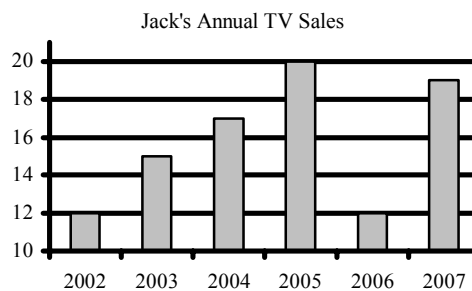


Figure 3

8. If a number is subtracted by 5, the difference is 1.
If the same number is divided by 2, the answer is?

- (A) 0
- (B) 1
- (C) 2
- (D) 3
- (E) 4

9. Sarah divides her \$8 snack money to be spent equally between candies, chocolates, and potato chips. About how much will she spend on potato chips?

- (A) \$1.00
- (B) \$1.50
- (C) \$2.30
- (D) \$2.50
- (E) \$2.70

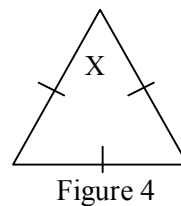
10. $\frac{1+3+5+7}{10-5-3-1} =$

USE THIS SPACE FOR FIGURING.

- (A) 9
 - (B) 16
 - (C) 17
 - (D) 18
 - (E) 20
-

11. What is the value of x , shown in Figure 4?

- (A) 45°
- (B) 50°
- (C) 55°
- (D) 60°
- (E) 65°



12. Which of the following fractions is closest to $\frac{1}{2}$?

- (A) $\frac{3}{6}$
- (B) $\frac{5}{8}$
- (C) $\frac{0}{9}$
- (D) $\frac{19}{20}$
- (E) $1\frac{2}{3}$

13. If $20 + 15 - \square = 40$, then $\square =$

USE THIS SPACE FOR FIGURING.

- (A) 0
- (B) 5
- (C) -5
- (D) 10
- (E) -10

14. Which number comes next in the sequence of 1, 4, 9, 16?

- (A) 17
- (B) 19
- (C) 23
- (D) 24
- (E) 25

Questions 15 – 17 refer to the graph in Figure 5.

15. What is the average amount the baseball team raised per quarter?

- (A) \$30
- (B) \$40
- (C) \$45
- (D) \$55
- (E) \$60

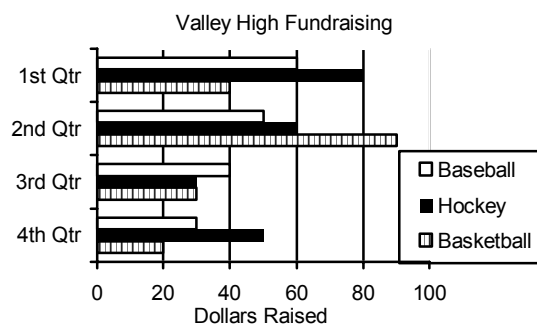


Figure 5

16. How much did all three teams raise for the 4th quarter in total?

- (A) \$75
- (B) \$80
- (C) \$90
- (D) \$100
- (E) \$150

17. During which quarter did the teams raised the most funds together? USE THIS SPACE FOR FIGURING.

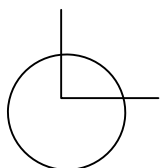
- (A) First
- (B) Second
- (C) Third
- (D) Fourth
- (E) Not enough information given

18. If $A \spadesuit B = \frac{A+B}{A-B}$, then $5 \spadesuit 6 =$

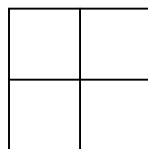
- (A) 5
- (B) -1
- (C) 0
- (D) 11
- (E) -11

19. Which of the following figures CANNOT be drawn without lifting the pencil or retracing?

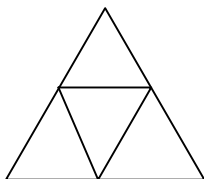
(A)



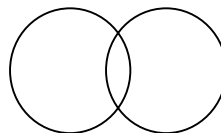
(B)



(C)



(D)



(E) None of the above

20. If $(M + N) \times 4 = 28$ and both M and N are non-zero whole numbers, then M could NOT be

USE THIS SPACE FOR FIGURING

- (A) 1
 - (B) 3
 - (C) 5
 - (D) 7
 - (E) Not enough information given
-

21. What is the eighth term in the sequence
0, 1, 1, 2, 3, 5, ...?

- (A) 13
 - (B) 21
 - (C) 34
 - (D) 55
 - (E) 89
-

22. At the Fantastic Zoo, the ratio of tigers to leopards is 5 to 1. Which of the following could NOT be the total number of tigers and leopards at the zoo?

- (A) 6
- (B) 16
- (C) 18
- (D) 36
- (E) 60

$$\begin{array}{r} 5A3 \\ \times 101 \\ \hline 52,823 \end{array}$$

USE THIS SPACE FOR FIGURING.

23. In the multiplication problem above, A represents which digit?

- (A) 0
- (B) 1
- (C) 2
- (D) 4
- (E) 6

24. To which of the following is 1.23 closest?

- (A) 12.0
- (B) 120
- (C) 1.2
- (D) 1.25
- (E) 1.22

25. Two people can paint two houses in three days.
How many people are needed to paint three houses
in three days?

- (A) 1.5
- (B) 2
- (C) 2.5
- (D) 3
- (E) 4

STOP

IF YOU FINISH BEFORE THE ALLOTTED TIME
YOU MAY CHECK YOUR ANSWERS ONLY FOR THIS SECTION
DO NOT TURN TO OTHER SECTIONS OF THIS TEST

SECTION 2

Time – 30 Minutes

25 Questions

Each problem in this section contains five suggested answers. Work out the problem in your head or in the space provided at the right side of the page. Then choose the best answer.

Sample Question:

- | | | | |
|-------------------------|-----|------|-----------|
| $25 \times 8 \div 10 =$ | (A) | 20 | |
| | (B) | 25 | |
| | (C) | 30 | |
| | (D) | 190 | |
| | (E) | 2000 | ANSWER: A |

-
1. If $2000 + 5000 + \diamond = 7,040$, then $\diamond =$

USE THIS SPACE FOR FIGURING.

- (A) 4
(B) 40
(C) 400
(D) 6740
(E) 7030

-
2. Which of the following is an odd integer that lies between 51 and 56?

- (A) 50
(B) 51
(C) 52
(D) 53
(E) 54

3. Each person contributed to the same amount towards a lottery ticket. If the ticket cost \$100, what cannot be the amount that each gave?

USE THIS SPACE FOR FIGURING.

- (A) \$5
- (B) \$10
- (C) \$15
- (D) \$20
- (E) \$25

4. What is the area of the triangle shown in Figure 1?

- (A) 3.5
- (B) 7
- (C) 9
- (D) 14
- (E) 28

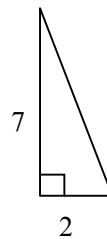


Figure 1

5. $(110 - 90) \div 4 =$

- (A) 2.5
- (B) 4
- (C) 5
- (D) 20
- (E) 24

6. The perimeter of a square with an area of 64 is

- (A) 80
- (B) 64
- (C) 48
- (D) 40
- (E) 32

7. An airplane with a capacity of 200 passengers has 68 percent of its seats filled. What is the number of passengers?

USE THIS SPACE FOR FIGURING.

- (A) 34
(B) 68
(C) 106
(D) 136
(E) 168

8. What is the next number in the sequence of 1, 3, 5, 7, ...?

- (A) 2
(B) 4
(C) 5
(D) 6
(E) 9

9. According to the graph in Figure 2, how much did the drama club spend on costumes?

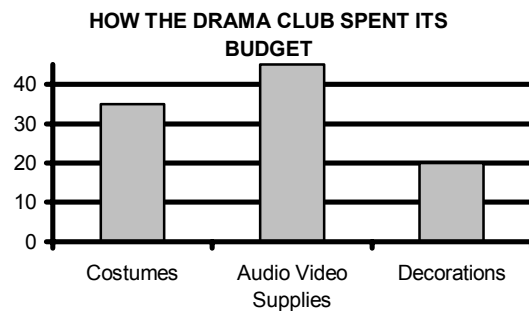


Figure 2

10. If $K = 17$, then 1 less than $3 \times K$ is equal to

- (A) 50
(B) 47
(C) 33
(D) 19
(E) 16

11. Which of the following statements is NOT true?

USE THIS SPACE FOR FIGURING.

- (A) $10 < 15$ and $1.2 < 1.25$
- (B) $0.3 < 0.333$ and $51 > 0.511$
- (C) $0.25 = 1 \div 4$ and $3.1 < 30$
- (D) $-12 < 1$ and $-45 > -56$
- (E) None of the above

12. 20 percent of \$100 is equal to

- (A) 15% of \$150
- (B) 25% of \$90
- (C) 30% of \$60
- (D) 40% of \$50
- (E) 50% of \$35

Questions 13 – 15 refers to Figure 3

13. How many different paths are there from A to B, that takes on a distance of 7.5?

- (A) 1
- (B) 2
- (C) 3
- (D) 4
- (E) 5

14. Harry is in a hurry. He wants to travel a path from A to B that is shorter than 7.5. How many choices does he have?

- (A) 4
- (B) 3
- (C) 2
- (D) 1
- (E) 0

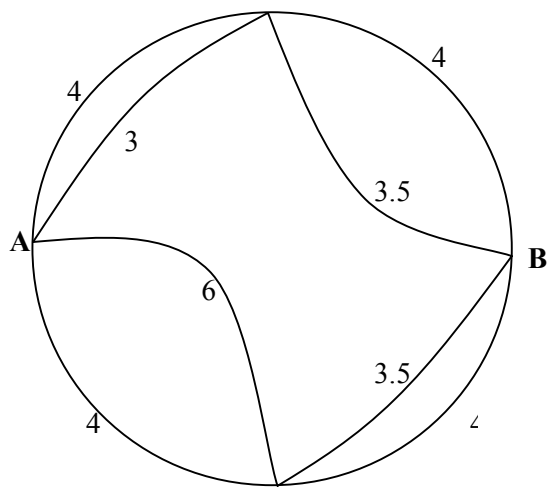


Figure 3

15. John wants to start from A, travel all the paths exactly once, then come back to A. How much distance will he need to travel?

USE THIS SPACE FOR FIGURING.

- (A) 29
- (B) 30.5
- (C) 32
- (D) Not enough information is given.
- (E) It is impossible to do.

16. Cindy bought a dress at 50% discount off the sale price, which is already \$20 off the regular price. She paid \$35. How much was the regular price of the dress?

- (A) \$30
- (B) \$50
- (C) \$70
- (D) \$90
- (E) \$110

17. If an empty wine glass is placed up-side down, as shown in Figure 4, which of the following describes all the points where the glass touches the table?

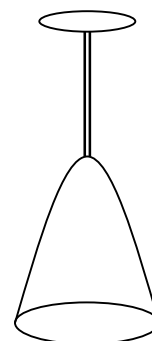
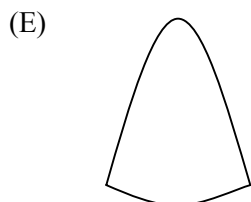
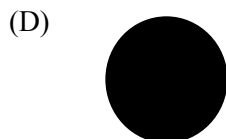
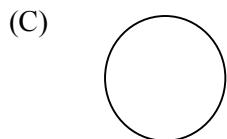


Figure 4

18. If $x \pitchfork y = x \times (x \div y)$, then $3 \pitchfork 2 =$

USE THIS SPACE FOR FIGURING.

- (A) 2.5
 - (B) 3
 - (C) 4.5
 - (D) 5
 - (E) 6.5
-

19. Of the following, 33% of \$9.95 is closest to

- (A) \$3.15
 - (B) \$3.30
 - (C) \$3.45
 - (D) \$3.50
 - (E) \$3.60
-

20. A polygon has perimeter of 84 and the average length is 7. How many sides does the polygon have?

- (A) 11
 - (B) 12
 - (C) 13
 - (D) 91
 - (E) 588
-

21. A person started at point A. He traveled 2km north, 2km east, 2km south, and 3km west. How far is he from where he started?

- (A) 1km north
- (B) 3km west
- (C) 2km south
- (D) 1km east
- (E) 1km west

22. Cities X and Y are separated by a distance of 20km. USE THIS SPACE FOR FIGURING.
Jim left City X and biked the first half of this distance at a speed of 10km/hour, then he walked the rest of the distance. If Jim took 3 hours to travel from X to Y, how fast does he walk?
- (A) 3.3km/hour
(B) 5km/hour
(C) 6.7km/hour
(D) 10km/hour
(E) Not enough information given

23. In Figure 5, what is the area of the UNSHADED region, if $DFGH$ is a square?

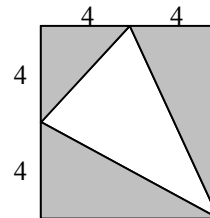


Figure 5

24. If $f + g$ is divisible by 9, which of the following must also be divisible by 9?
- (A) $(7 \times f) + (7 \times g)$
(B) $9 + (f \times g)$
(C) $f + g \div 9$
(D) $8 \times (f + g) + 1$
(E) $(f + g) \div 9$

25. How many numbers can be found between the numbers 1 and 100 that contains the digit 3?

USE THIS SPACE FOR FIGURING.

- (A) 10
- (B) 11
- (C) 19
- (D) 20
- (E) 21

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