

SECTION 1
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:

$\begin{array}{r} 5,413 \\ - 4,827 \\ \hline \end{array}$	<p>(A) 586 (B) 596 (C) 696 (D) 1,586 (E) 1,686</p>	<input checked="" type="radio"/> <input type="radio"/> B <input type="radio"/> C <input type="radio"/> D <input type="radio"/> E
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-
1. If three times a number is 9, what is the number?

USE THIS SPACE FOR FIGURING.

- (A) 2
- (B) 3
- (C) 6
- (D) 12
- (E) 27

-
2. If three dozen slices of pizza are divided equally among 36 people at a birthday party, how many slices will each person have?

- (A) 1
- (B) 2
- (C) 3
- (D) 4
- (E) 12

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

3. Which of the following numbers is divisible by 6?

- (A) 353
 - (B) 356
 - (C) 358
 - (D) 360
 - (E) 362
-

4. $19 + 31 + 11$ is closest to

- (A) $10 + 30 + 10$
 - (B) $15 + 40 + 10$
 - (C) $20 + 30 + 10$
 - (D) $20 + 30 + 20$
 - (E) $20 + 40 + 15$
-

5. $1/4, 2/8, 3/12, 4/\blacksquare, \dots$

In the number pattern above, $\blacksquare =$

- (A) 10
 - (B) 12
 - (C) 14
 - (D) 16
 - (E) 20
-

6. Aaron received x tickets to a concert and divided them equally among himself and his four friends. Which of the following expressions shows the number of tickets that each person received?

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

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

7. Caroline had a one hour nap, and then slept for seven hours. What fraction of the full day was Caroline asleep?
- (A) $\frac{1}{4}$
 - (B) $\frac{1}{3}$
 - (C) $\frac{2}{3}$
 - (D) $\frac{4}{24}$
 - (E) $\frac{7}{24}$
-

8. If $x = 2$ and $y = 19$, then $xy =$
- (A) 9.5
 - (B) 17
 - (C) 21
 - (D) 29
 - (E) 38
-

9. Nathan reads four books in the fall and two books in the winter. In the summer, he reads twice the number of books he reads in the fall. In the spring, he reads half the number of books he reads in the fall. If he continues to read at the same rate, how many books will he read in two full years?
- (A) 16
 - (B) 18
 - (C) 22
 - (D) 24
 - (E) 32

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

10. In Figure 1, the radius of the circle is 4. If a line segment is drawn inside the circle so it does not extend beyond the circle's outer edge, the line segment could have any of the following lengths EXCEPT:

- (A) 10
- (B) 8
- (C) 7
- (D) 6
- (E) 4

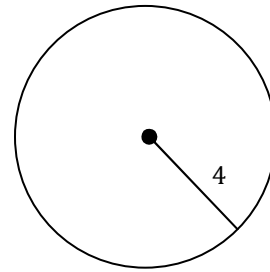


Figure 1

11. The cost of go-karting is S dollars for the first ten laps around the track and T dollars for each additional lap. What is the cost, in dollars, of go-karting for 17 laps?

- (A) $T + (S \times 7)$
- (B) $S + (T \times 7)$
- (C) $(S \times 10) + T$
- (D) $(T \times 10) + S$
- (E) $17 + S + T$

12. If Figure 2 is a rectangle, then $x =$

- (A) 45
- (B) 60
- (C) 90
- (D) 180
- (E) 360

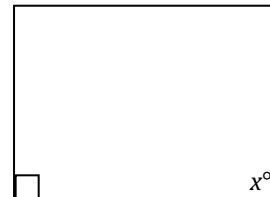


Figure 2

13. If 40 percent of a number is 200, then 10 percent of the same number is

- (A) 10
- (B) 20
- (C) 50
- (D) 140
- (E) 190

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USE THIS SPACE FOR FIGURING.

Questions 14-15 are based on the graph in Figure 3.

14. Which of the following statements is correct?

- (A) In 2004, Jack sold exactly twice as many televisions as he sold in 2002.
- (B) Jack sold the same number of televisions in 2005 as in 2007.
- (C) In 2007, Jack sold more than twice as many televisions as in 2003.
- (D) Jack sold the most televisions in 2007.
- (E) None of the above statements are correct.

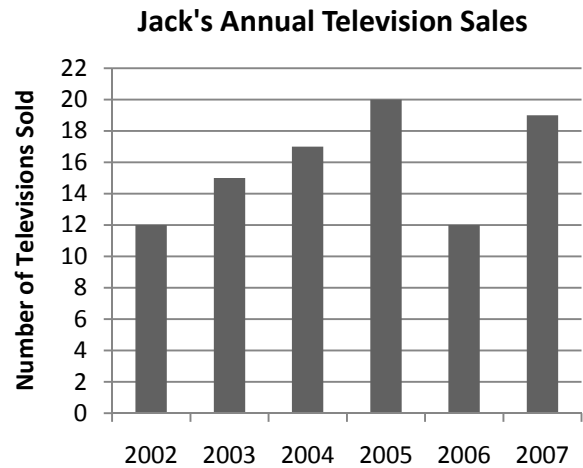


Figure 3

15. In 2006, the employee of the year sold 36 televisions. In 2006, Jack's television sales were what fraction of the employee of the year's sales?

- (A) $\frac{1}{2}$
- (B) $\frac{1}{3}$
- (C) $\frac{2}{3}$
- (D) $\frac{3}{5}$
- (E) $\frac{6}{7}$

16. A safari company offers group tours that cost \$100 for two people and \$20 more for each additional person. If five people share the cost of the tour equally, how much does each person pay?

- (A) \$20.00
- (B) \$24.00
- (C) \$32.00
- (D) \$35.00
- (E) \$40.00

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USE THIS SPACE FOR FIGURING.

17. $498.57 =$

(A) $49 + \frac{8}{10} + \frac{5}{100} + \frac{7}{1000}$

(B) $498 + \frac{5}{1} + \frac{7}{10}$

(C) $498 + \frac{5}{10} + \frac{7}{10}$

(D) $498 + \frac{5}{10} + \frac{7}{100}$

(E) $498 + \frac{5}{100} + \frac{7}{1000}$

18. In Figure 4, $LMNO$ is a square. If the length of KL is 8 and the length of LO is 3, what is the area of the rectangle $JKMN$?

(A) 21

(B) 24

(C) 28

(D) 33

(E) 36

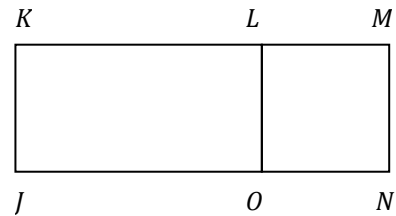


Figure 4

19. There were 17 sunny days this year, which was 18 fewer than last year. Two years ago, there were three times as many sunny days as there were this year. How many total sunny days were there in all three years?

(A) 35

(B) 51

(C) 54

(D) 103

(E) 104

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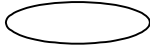

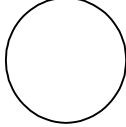
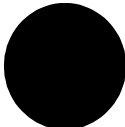

20. How many fifths are there in $5\frac{2}{5}$?

- (A) 1
- (B) 2
- (C) 5
- (D) 25
- (E) 27

21. The Smith family has four children. Matt is 5 years older than Kim. Kim is half Kyle's age. Meg is older than Kyle, but not Matt. Who is the second youngest child?

- (A) Matt
- (B) Kim
- (C) Kyle
- (D) Meg
- (E) It cannot be determined from the information given.

22. In Figure 5, an empty glass with a flat, circular rim is placed upside down on a piece of paper. Which of the following shows all of the points where the glass touches the paper?

- (A) 
- (B) 
- (C) 
- (D) 
- (E) 

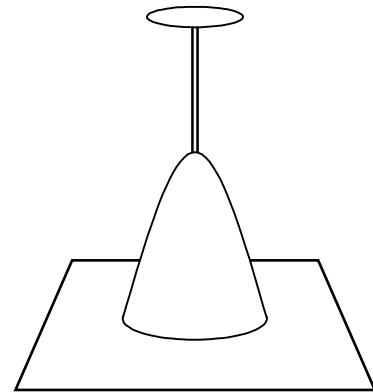


Figure 5

USE THIS SPACE FOR FIGURING.

23. Patrick started at point A. He traveled 2 km north, 2 km east, 2 km south, and 3 km west. How far is he from where he started?
- (A) 1 km north
 - (B) 1 km east
 - (C) 1 km west
 - (D) 2 km south
 - (E) 3 km west
-

24. If $x^3 + 2$, what is the value of x^2 ?
- (A) 5
 - (B) 7
 - (C) 8
 - (D) 10
 - (E) 12
-

25. The sum of three consecutive odd numbers is 171. What is the largest number?
- (A) 55
 - (B) 57
 - (C) 58
 - (D) 59
 - (E) 61

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.