

SECTION 4
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"/> (A) <input type="radio"/> (B) <input type="radio"/> (C) <input type="radio"/> (D) <input type="radio"/> (E)
---	--	--

-
1. The blue team has 12 players and the red team has 20 players. How many players need to move from the red team to the blue team in order for the teams to have the same number of players?

USE THIS SPACE FOR FIGURING.

- (A) 10
(B) 8
(C) 6
(D) 4
(E) 3

-
2. When 10,301 is divided by 206, the result is closest to

- (A) 5
(B) 45
(C) 50
(D) 500
(E) 550

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

3. Mr. Perry's class has j more students than Mrs. Chen's class. If Mr. Perry's class has 19 students, how many students are in Mrs. Chen's class?
- (A) $19 + j$
(B) $j - 19$
(C) $j/19$
(D) $19 \times j$
(E) $19 - j$
-

4. Bogdan wants to build a boardwalk around his farm that has a perimeter of 972 feet. If each piece of wood he will use is 3 yards long, how many pieces of wood will he need to build the boardwalk?
- (A) 81
(B) 108
(C) 162
(D) 243
(E) 324
-

5. In Figure 1, the perimeter of the two congruent trapezoids is 48. If $x = 12$, then $y =$
- (A) 24
(B) 12
(C) 8
(D) 6
(E) 4

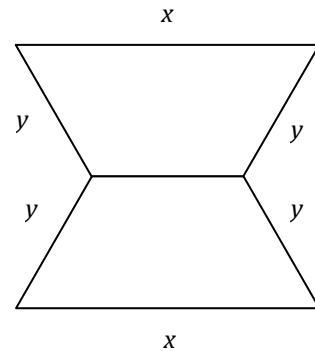


Figure 1

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

6. $600 - 8\frac{9}{10} =$
- (A) $591\frac{1}{10}$
 - (B) $591\frac{9}{10}$
 - (C) $592\frac{1}{5}$
 - (D) $592\frac{9}{10}$
 - (E) $593\frac{1}{5}$
-

7. All of the following expressions are equal EXCEPT
- (A) $2 \times \frac{3}{2}$
 - (B) $3 \times \frac{2}{3}$
 - (C) $4 \times \frac{3}{4}$
 - (D) $6 \times \frac{1}{2}$
 - (E) $9 \times \frac{1}{3}$
-

8. What is the next number in the following sequence?
1, 4, 9, 16, 25, ___
- (A) 28
 - (B) 34
 - (C) 35
 - (D) 36
 - (E) 50
-

9. The average wait time for a popular ride at the amusement park is 1 hour and 15 minutes. If Jaymin rode on the roller coaster four times and had to wait in line each time, how long was her total waiting time?
- (A) 3 hours and 45 minutes
 - (B) 4 hours
 - (C) 4 hours and 15 minutes
 - (D) 4 hours and 45 minutes
 - (E) 5 hours

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

10. Antoinette decided to put all of her jewelry on sale for 20% off. If one of her necklaces had an original price of \$17.50, its discounted price was
- (A) \$3.50
 - (B) \$8.75
 - (C) \$10.50
 - (D) \$14.00
 - (E) \$15.50

Questions 11-12 refer to the graph in Figure 2, which reflects a survey of students' preferred bread types in a cafeteria.

11. What percent of the students prefer whole wheat bread?
- (A) 40%
 - (B) 33%
 - (C) 30%
 - (D) 25%
 - (E) 20%

12. What fraction of students prefer rye bread?
- (A) $\frac{1}{6}$
 - (B) $\frac{1}{8}$
 - (C) $\frac{1}{12}$
 - (D) $\frac{3}{10}$
 - (E) $\frac{3}{25}$

Cafeteria Bread Preferences

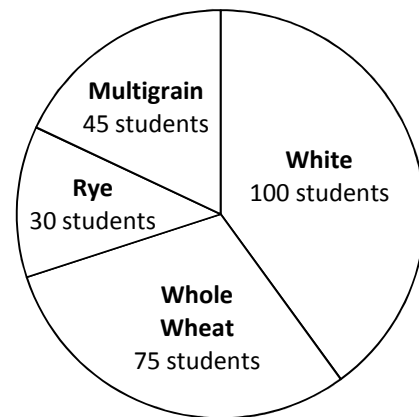


Figure 2

-
13. If $D < 9$, then $4D + 6$ could be equal to
- (A) 38
 - (B) 42
 - (C) 46
 - (D) 50
 - (E) 54

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

14. Oren is 4 inches taller than Lisa, who is twice as tall as their son Milo. If Oren is 74 inches tall, how tall is Milo?
- (A) 2 ft, 9 inches
 - (B) 2 ft, 10 inches
 - (C) 2 ft, 11 inches
 - (D) 3 ft, 1 inch
 - (E) 5 ft, 8 inches

-
15. Find the perimeter of the shape in Figure 3.

- (A) 26
- (B) 30
- (C) 38
- (D) 40
- (E) 42

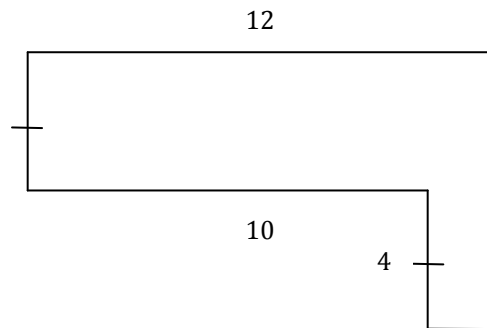


Figure 3

Note: All angles are right angles.

-
16. On Monday, Jackson had \$12.75 in his piggy bank. On Tuesday, he took out \$2.45. On Wednesday, he added \$6.25. On Thursday, he did not add or take away any money. On Friday, he took out \$1.60. The amount of money in his piggy bank on Friday was how much greater than the amount on Monday?
- (A) \$2.20
 - (B) \$2.45
 - (C) \$5.40
 - (D) \$7.10
 - (E) \$14.95

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

17. If $4M + N = 20$ and $N + P = 20$, what is the value of M ?
- (A) 0
 - (B) 4
 - (C) 16
 - (D) 24
 - (E) It cannot be determined from the information given.
-

18. A small town has two parks. The first park measures 80 feet by 90 feet, and the second park measures 150 feet by 200 feet. The two parks have an average area of how many square feet each?
- (A) 260
 - (B) 18400
 - (C) 18500
 - (D) 18600
 - (E) 37200
-

19. If $x + y$ is divisible by 9, which of the following expressions MUST also be divisible by 9?
- (A) $\frac{x}{y} + 9$
 - (B) $(9x) + y$
 - (C) $x + (9y)$
 - (D) $xy + 9$
 - (E) $2x + 2y$

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

20. In the first round of a math contest, each student had to answer 2 questions. Miriam averaged 76 seconds per question. Jake and Rafael averaged 84 seconds per question, and Sam averaged 80 seconds per question. At the end of the first round, what was the total time for all 4 students?
- (A) 324 seconds
 - (B) 400 seconds
 - (C) 480 seconds
 - (D) 568 seconds
 - (E) 648 seconds

-
21. In Figure 4, if lines p and q are parallel, then $x + y =$
- (A) 140°
 - (B) 170°
 - (C) 175°
 - (D) 180°
 - (E) 190°

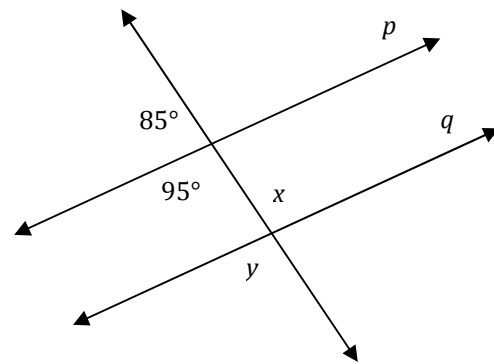


Figure 4

-
22. A and B have an average of 15. If A is greater than B, which of the following MUST be true?
- (A) $A + B = 15$
 - (B) $\frac{A}{B} \div 2 = 15$
 - (C) $A = 12$ and $B = 18$
 - (D) $A - B = 20$
 - (E) $(A + B) \div 2 = 15$

GO ON TO THE NEXT PAGE.

USE THIS SPACE FOR FIGURING.

23. $281 \div 4 =$

(A) $\frac{200}{4} + \frac{80}{4} + \frac{1}{4}$

(B) $200 + \frac{80}{4} + \frac{1}{4}$

(C) $\frac{2}{4} + \frac{8}{4} + \frac{1}{4}$

(D) $\frac{200}{4} \times \frac{80}{4} \times \frac{1}{4}$

(E) $\frac{200}{4} \div \frac{80}{4} \div \frac{1}{4}$

24. If 40 percent of a movie ticket costs \$5.00, what is 20 percent of the cost of two tickets?

(A) \$2.50

(B) \$5.00

(C) \$6.00

(D) \$7.50

(E) \$10.00

25. Which of the following could be the value of h

if $\frac{4}{7} + h < 1$?

(A) $\frac{1}{2}$

(B) $\frac{3}{7}$

(C) $\frac{2}{7}$

(D) $\frac{3}{5}$

(E) $\frac{2}{3}$

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.