



Mini-Test 1

DO YOUR FIGURING HERE.

1. If $5x + 2 = 7x - 7$, then $x = ?$

A. $\frac{2}{9}$

B. $\frac{1}{3}$

C. $\frac{2}{3}$

D. $\frac{3}{2}$

E. $\frac{9}{2}$

2. The expression $x[(y - w) + z]$ is equivalent to:

F. $xy - xw + xz$

G. $xy - w + z$

H. $xy + xw + xz$

J. $xy - xw - xz$

K. $xy - w + xz$

3. The toxicity level of a lake is found by dividing the amount of dissolved toxins the lake water currently has per liter by the maximum safe amount of dissolved toxins that the water can hold per liter and then converting it to a percentage. If the lake currently has 0.86 milligrams of dissolved toxins per liter of water and the maximum safe amount of dissolved toxins is 1.04 milligrams per liter, what is the toxicity level of the lake water, to the nearest percentage?

A. 86%

B. 84%

C. 83%

D. 80%

E. 79%

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DO YOUR FIGURING HERE.

4. A rectangular pasture that measures 250 meters by 300 meters is completely fenced around its borders. What is the approximate length, in meters, of the surrounding fence?
- F. 75,000
G. 1,100
H. 750
J. 600
K. 550

5. So far, Michael has earned the following scores on five 100-point tests this semester: 72, 94, 85, 83, 97. What score must he earn on the sixth 100-point test of the semester if he wants to make an 88-point average for the six tests?
- A. 100
B. 97
C. 88
D. 85
E. He cannot make an average of 88.

6. Which two numbers should be placed in the blanks below so that the difference between consecutive numbers is the same?

19, __, __, 55

- F. 20, 53
G. 27, 50
H. 30, 48
J. 31, 43
K. 34, 42
7. Mrs. Cook is a teacher whose salary is \$23,125 for a 185-day school year. In Mrs. Cook's school district, substitute teachers are paid at a rate of \$90 per day. If a substitute is paid to teach Mrs. Cook's class in her absence one day, how much less does the school district pay in salary by paying a substitute teacher instead of Mrs. Cook for that day?
- A. \$215
B. \$125
C. \$ 90
D. \$ 45
E. \$ 35

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DO YOUR FIGURING HERE.

8. If a marble is randomly chosen from a bag that contains exactly 6 purple marbles, 4 blue marbles, and 10 green marbles, what is the probability that the marble will NOT be green?

F. $\frac{1}{5}$

G. $\frac{3}{10}$

H. $\frac{1}{3}$

J. $\frac{1}{2}$

K. $\frac{3}{5}$

9. Zach has 3 pairs of shoes, 8 shirts, and 5 pairs of jeans. How many distinct outfits—each consisting of a pair of shoes, a shirt, and a pair of jeans—can Zach select?

A. 240

B. 120

C. 40

D. 16

E. 8

10. $4x^2y \cdot 2x^3y \cdot 3xy^2$ is equivalent to:

F. $9x^6y^2$

G. $9x^6y^4$

H. $12xy^{10}$

J. $24x^6y^2$

K. $24x^6y^4$

END OF MINI-TEST ONE

STOP! DO NOT GO ON TO THE NEXT PAGE

UNTIL TOLD TO DO SO.

