1. Which pair of expressions are equivalent?

   A. $c^2 + 4d$ and $2c + 2d + 2d$ **B.** $6s - 2$ and $2(3s - 2)$

   C. $5(t + s)$ and $5t + s$ **D.** $12a + 15b$ and $3(4a + 5b)$

2. Simplify: $\frac{2}{3}(12x + 6) - \frac{1}{2}(4x + 6)$?

3. Simplify: $12x - 20 - 5(x - 3)$?

4. Simplify:? $\frac{-1}{12}(x + 24)$

5. Graph the solution of $2x - 3 \le 5$

6. Judith has two rooms in her house that she rents out separately. She charges $220 per month in rent for one of the rooms. She collected a total of $5,820 in rent last year, when both rooms were rented all year long. How much rent did Judith charge per month for the other room? You must write and solve an equation to receive credit.

7. In a high school basketball game, Sarah scored 10 points in the first half of the game. In the second half, Sarah scored only 3-point shots. Sarah scored a total of 31 points during the entire game. How many 3-point shots did Sarah make in the second half? You must write and solve an equation to receive credit.

8. Write a mathematical inequality to represent the following statement:
   Six times a number is greater than 3 less than 4 times the same number.

9. Write an equation to describe "two times a given number plus five equals 15".

10. Solve for w: $-8w + 2 = 3$

11. What are all the values of x that make the inequality $8 - 3x < 20$ true?

12. A band will sell CDs of their music at their concert for $6.00 each. The band ordered 325 CDs at a cost of $1.25 each. Which inequality represents the number of CDs, n, the band needs to sell to make a profit of at least $600? You must write and solve an inequality to receive credit.
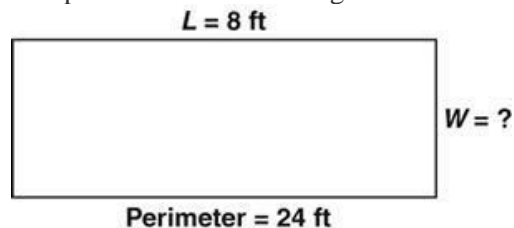
13. Mr. Tanner bought some boxes of markers with 18 markers in each box. He kept 2 markers and gave the rest to his students. The equation below can be used to calculate the number of boxes (b) he bought.
    $18b - 2 = 214$
    How many boxes of markers did Mr. Tanner buy?

14. Anita works for a dog-walking service. She earns $10 plus $2 for each dog she walks. She calculates her earnings by using the equation $P = 2N + 10$, where P is the total pay in dollars, and N is the number of dogs she walks. If Anita wants to earns at least $40, what is the minimum number of dogs she must walk?

15. The perimeter of the rectangle below is 24 ft. What is the width of the rectangle?

    L = 8 ft

    W = ?

    Perimeter = 24 ft

16. What is the value of x in $4x - 2 = 10$?

17. What is the length of a rectangular rose garden with a width of 25 feet and a perimeter of 130 feet? You must write and solve an equation to receive credit.

18. If two-thirds of a number decreased by 20 is 40, what is the number? You must write and solve an equation to receive credit.

19. Terry had his car repaired at Ace Auto. He was charged $50 per hour for labor plus $150 for parts. His total bill for the repair before tax was $375. How many hours of labor was Terry charged for? You must write and solve an equation to receive credit.

20. Talk Time Phone Company charges $0.12 per minute of phone use plus a monthly service fee of $8.00 for its phone service. The equation below can be used to find c, the total cost for one month when m minutes are used.

$c = 0.12m + 8$

If a customer's bill for the month is $38.00, how many minutes did the customer use the phone?

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