



NAME _____

DATE _____

PERIOD _____

Unit 4**Lesson 4: Practice Problems**

1. Mai and Tyler work on the equation $\frac{2}{5}b + 1 = -11$ together. Mai's solution is $b = -25$ and Tyler's is $b = -28$. Here is their work:

Mai:

$$\frac{2}{5}b + 1 = -11$$

$$\frac{2}{5}b = -10$$

$$b = -10 \cdot \frac{5}{2}$$

$$b = -25$$

Tyler:

$$\frac{2}{5}b + 1 = -11$$

$$2b + 1 = -55$$

$$2b = -56$$

$$b = -28$$

Do you agree with their solutions? Explain or show your reasoning.

2. Solve $3(x - 4) = 12x$

3. Describe what is being done in each step while solving the equation.

a. $2(-3x + 4) = 5x + 2$

b. $-6x + 8 = 5x + 2$

c. $8 = 11x + 2$

d. $6 = 11x$

e. $x = \frac{6}{11}$

4. Andre solved an equation, but when he checked his answer he saw his solution was incorrect. He knows he made a mistake, but he can't find it. Where is Andre's mistake and what is the solution to the equation?

$$\begin{array}{rcl} -2(3x - 5) & = & 4(x + 3) + 8 \\ -6x + 10 & = & 4x + 12 + 8 \\ -6x + 10 & = & 4x + 20 \\ 10 & = & -2x + 20 \\ -10 & = & -2x \\ 5 & = & x \end{array}$$



NAME _____

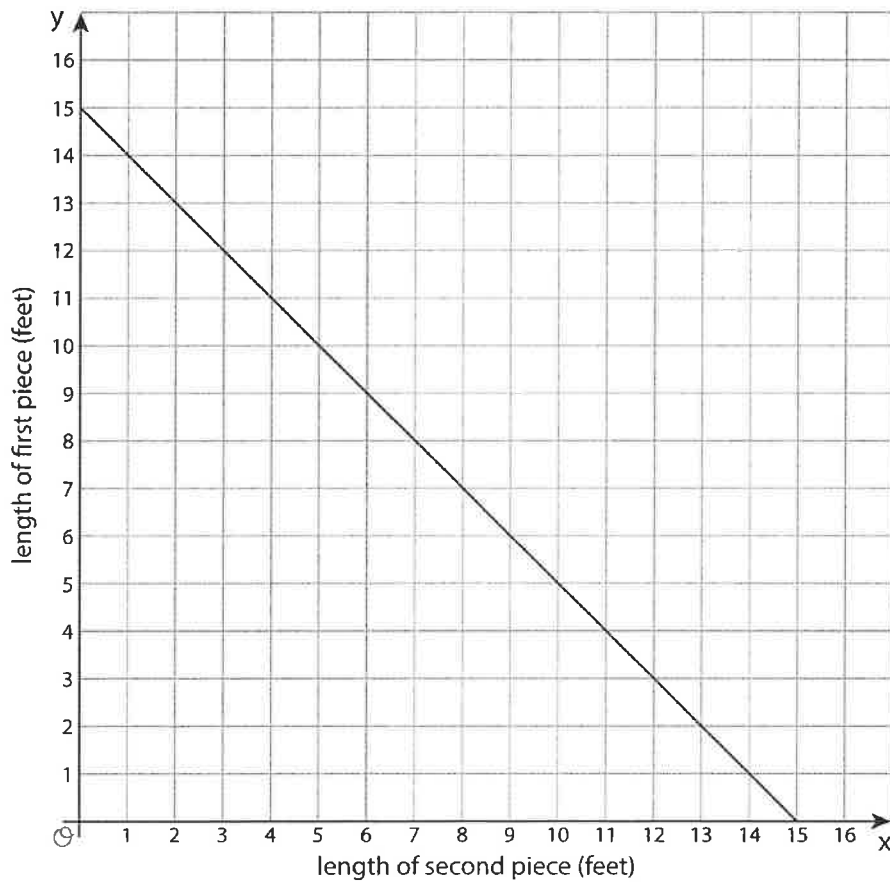
DATE _____

PERIOD _____

5. Choose the equation that has solutions (5,7) and (8,13).

- A. $3x - y = 8$
- B. $y = x + 2$
- C. $y - x = 5$
- D. $y = 2x - 3$

6. A length of ribbon is cut into two pieces to use in a craft project. The graph shows the length of the second piece, x , for each length of the first piece, y .



- a. How long is the ribbon? Explain how you know.
- b. What is the slope of the line?
- c. Explain what the slope of the line represents and why it fits the story.