

Lesson 8 Practice Problems

1. Lin was looking at the equation 2x - 32 + 4(3x - 2462) = 14x. She said, "I can tell right away there are no solutions, because on the left side, you will have 2x + 12x and a bunch of constants, but you have just 14x on the right side." Do you agree with Lin? Explain your reasoning.

2. Han was looking at the equation 6x - 4 + 2(5x + 2) = 16x. He said, "I can tell right away there are no solutions, because on the left side, you will have 6x + 10x and a bunch of constants, but you have just 16x on the right side." Do you agree with Han? Explain your reasoning.

3. Decide whether each equation is true for all, one, or no values of x.

a.
$$6x - 4 = -4 + 6x$$

b.
$$4x - 6 = 4x + 3$$

c.
$$-2x + 4 = -3x + 4$$



4. Solve each of these equations. Explain or show your reasoning.

a.
$$3(x - 5) = 6$$

b.
$$2\left(x - \frac{2}{3}\right) = 0$$

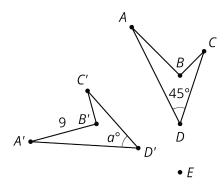
c.
$$4x - 5 = 2 - x$$

(From Unit 4, Lesson 4.)

5. The points (-2,0) and (0,-6) are each on the graph of a linear equation. Is (2,6) also on the graph of this linear equation? Explain your reasoning.

(From Unit 3, Lesson 13.)

6. In the picture triangle A'B'C' is an image of triangle ABC after a rotation. The center of rotation is E.



- a. What is the length of side AB? Explain how you know.
- b. What is the measure of angle D^\prime ? Explain how you know.

(From Unit 1, Lesson 7.)