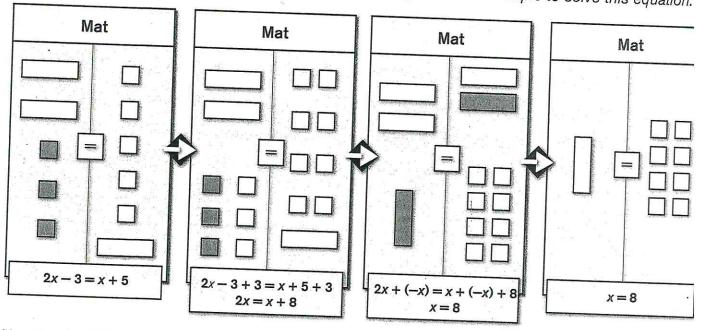
Often linear equations have variables on both sides of the equal signs. For example, 2x - 3 = x + 5. Again, we can use Algebra Tiles and apply the Zero Principle to solve this equation.



Use Algebra Tiles and a work mat to solve the following linear equations.

1.
$$2x + 4 = 3x + 2$$
 2. $x + 4 = 2x = 6$ 3. $3x + 3 = 4x - 1$

2.
$$x + 4 = 2x = 6$$

3.
$$3x + 3 = 4x - 1$$

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

4.
$$2x-3=x+2$$
 5. $3x-3=2x+2$ 6. $4x-3=3x-1$

6.
$$4x - 3 = 3x - 1$$

7.
$$x + 4 = 3x - 2$$
 8. $x + 4 = 3x$ 9. $2x + 8 = 4x + 5$

8.
$$x + 4 = 3x$$

9.
$$2x + 8 = 4x + 5$$

10. Explain the steps you used to find the value of x in Problem 6.

Problems 1 through 6 are all similar; however, problems 7, 8, and 9 have a slight variation.

11. Explain the steps you used to find the value of x in Problem 8.