NAME   DATE   PERIOD

Unit 6, Lesson 9
Practice Problems
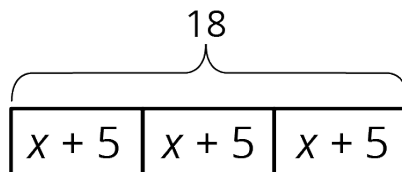
1. Solve each equation.

   a. $4x = \text{-}28$

   b. $x - \text{-}6 = \text{-}2$

   c. $\text{-}x + 4 = \text{-}9$

   d. $\text{-}3x + 7 = 1$

   e. $25x + \text{-}11 = \text{-}86$

2. Here is an equation $2x + 9 = \text{-}15$. Write three different equations that have the same solution as $2x + 9 = \text{-}15$. Show or explain how you found them.

3. Select **all** the equations that match the diagram.

   A. $x + 5 = 18$

   B. $18 \div 3 = x + 5$

   C. $3(x + 5) = 18$

   D. $x + 5 = \frac{1}{3} \cdot 18$

   E. $3x + 5 = 18$

4. Match each story to an equation.

A. A stack of nested paper cups is 8 inches tall. The first cup is 4 inches tall and each of the rest of the cups in the stack adds $\frac{1}{4}$ inch to the height of the stack.

B. A baker uses 4 cups of flour. She uses $\frac{1}{4}$ cup to flour the counters and the rest to make 8 identical muffins.

C. Elena has an 8-foot piece of ribbon. She cuts off a piece that is $\frac{1}{4}$ of a foot long and cuts the remainder into four pieces of equal length.

1. $\frac{1}{4} + 4x = 8$

2. $4 + \frac{1}{4}x = 8$

3. $8x + \frac{1}{4} = 4$

5. There are 88 seats in a theater. The seating in the theater is split into 4 identical sections. Each section has 14 red seats and some blue seats.

   a. Draw a tape diagram to represent the situation.

   b. What unknown amounts can be found by by using the diagram or reasoning about the situation?