

Lesson 9 Practice Problems

1. Solve each equation.

a. $4x = -28$

b. $x - 6 = -2$

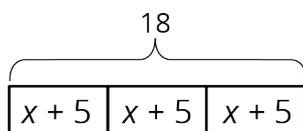
c. $-x + 4 = -9$

d. $-3x + 7 = 1$

e. $25x + -11 = -86$

2. Here is an equation $2x + 9 = -15$. Write three different equations that have the same solution as $2x + 9 = -15$. 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. $3x + 5 = 18$

(From Unit 3, Lesson 3.)

4. 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 using the diagram or reasoning about the situation?

(From Unit 3, Lesson 2.)

5. 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.

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

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

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

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.

(From Unit 3, Lesson 4.)