

NAME \_\_\_\_\_

DATE \_\_\_\_\_

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## Unit 6, Lesson 9: Dealing with Negative Numbers

1. Solve each equation.

a.  $4x = -28$

b.  $x - -6 = -2$

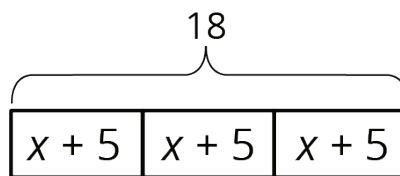
c.  $-x + 4 = -9$

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 6, Lesson 3)

4. Match each story to an equation.

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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 6, Lesson 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?

(from Unit 6, Lesson 2)