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NAME

DATE

PERIOD

## Assessment

### Expressions, Equations, and Inequalities: Check Your Readiness

Do not use a calculator.

1. Jada is collecting stickers. After getting 15 more stickers, she has 60 stickers in total.

Select **all** the equations Jada can solve to find  $x$ , the number of stickers she started with.

a.  $x + 15 = 60$

b.  $x - 15 = 60$

c.  $x = 60 + 15$

d.  $x = 60 - 15$

e.  $15x = 60$

f.  $x = 60 \cdot 15$

g.  $x = \frac{60}{15}$

2. Solve each equation.

$$p + 12 = 17$$

$$\frac{7}{3} = q + \frac{2}{3}$$

$$90 = 20r$$

$$\frac{1}{3}s = 7$$

$$15 = 1.5t$$

$$79 + u = 65$$

$$6v = -9$$


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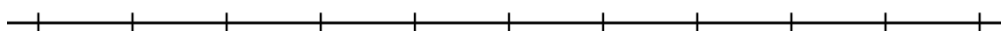
3. Lin is selling boxes of cookies. Each box costs \$3.75. Lin's goal is to earn more than \$30 selling cookies.

a. If Lin sells 6 boxes of cookies, will she make her goal?

b. If Lin sells 20 boxes of cookies, will she make her goal?

c. If Lin sells  $b$  boxes of cookies, write an inequality (using the symbol  $<$  or  $>$ ) that will be true whenever Lin makes her goal, and false whenever she does not.

d. Graph your inequality on a number line.



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NAME

DATE

PERIOD

4. Select **all** the equations that are true when  $x$  is -4.

a.  $-8 = 2x$

b.  $-12 = x \cdot -3$

c.  $-12 = x + x + x$

d.  $\frac{x}{4} = -1$

e.  $x + 4 = -8$

f.  $x^2 = -16$

5. Which expression is equivalent to  $2(3x - 4)$ ?

a.  $3x - 4$

b.  $5x - 6$

c.  $6x - 4$

d.  $6x - 8$

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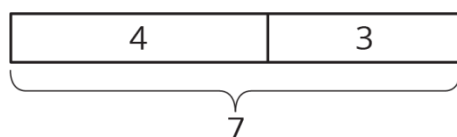
NAME

DATE

PERIOD

6. Next to each equation, write *A*, *B*, or *neither*, to indicate whether it matches diagram A, diagram B, or neither diagram.

A



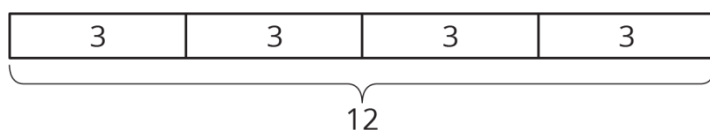
a.  $7 = 3 + 4$

b.  $4 - 3 = 7$

c.  $7 - 4 = 3$

d.  $4 \cdot 3 = 7$

B



e.  $3 + 3 + 3 + 3 = 12$

f.  $12 = 4 \cdot 3$

g.  $12 \div 4 = 3$

h.  $3 \cdot 3 \cdot 3 \cdot 3 = 12$

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