

**Equations and Replacement Sets (6.EE.5 and 6.EE.7)**

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Which value for  $x$  makes the number sentence true?

$$3x + 10 = 19$$

- A. 3      B. 6      C. 9      D. 27

2. What value of  $r$  makes  $\frac{r}{-11} = -3$  true?

- A. -33      B. -8      C. 8      D. 33

3. In an election on how to raise money for a class trip, three-fourths of the students voted to sell candy. There were 60 students who voted in favor of the candy sale. Grace used the following equation to find the total number of students,  $s$ , who voted.

$$\frac{3}{4}s = 60$$

What is the total number of students who voted?

- A. 90      B. 80      C. 75      D. 45

4. What is the solution to the equation below?

$$\frac{y}{-7} = 21$$

- A.  $y = -3$                       B.  $y = 3$   
 C.  $y = 147$                       D.  $y = -147$

5. Juan is 5 years older than Kathy. If Juan is 17 years old, which equation could be used to find  $k$ , Kathy's age?

- A.  $k + 5 = 17$                       B.  $k \cdot 5 = 17$   
 C.  $k - 5 = 17$                       D.  $k \div 5 = 17$

6. Joaquin charges \$4.00 per hour to baby-sit. What equation could Joaquin use to find the number of hours ( $h$ ) he needs to baby-sit in order to earn \$50.00?

- A.  $4h = 50$                       B.  $\frac{h}{4} = 50$   
 C.  $h - 4 = 50$                       D.  $4 + h = 50$

7. This year, a company made a profit that is 20 times greater than last year's profit. The company made a profit of \$110,000.00 this year. Which equation could be used to find the profit ( $p$ ) the company made *last year*?

- A.  $20p = 110,000$                       B.  $p = 110,000 \times 20$   
 C.  $110,000p = 20$                       D.  $p = 110,000 + 20$

8. Cai bought popcorn for herself and 2 friends, plus a drink only for herself. The popcorn cost \$2 for each person, and the total cost for Cai's purchase was \$7.50. If  $d$  is the cost of a drink, which equation below could be used to determine the cost of Cai's drink?

- A.  $2 + d = \$7.50$                       B.  $2 + 2d = \$7.50$   
 C.  $3(2) + d = \$7.50$                       D.  $3(2) + 3d = \$7.50$