Name _____

Solutions of Equations

COMMON CORE STANDARD—6.EE.5
Reason about and solve one-variable equations and inequalities.

Determine whether the given value of the variable is a solution of the equation.

1. $x - 7 + 15; x = 8$

8 − 7 ≟ 15

1 ≠ 15

not a solution

2. $c + 11 = 20; c = 9$

3. $7n = 7; n = 0$

4. $\frac{1}{3}h = 6; h = 2$

5. $a - 1 = 70; a = 71$

6. $\frac{7}{8} + j = 1; j = \frac{1}{8}$

7. $16.1 + d = 22; d = 6.1$

8. $9 = \frac{3}{4}e; e = 12$

9. $15.5 - y = 7.9; y = 8.4$

Problem Solving Real World

10. Terrance needs to score 25 points to win a game. He has already scored 18 points. The equation $18 + p = 25$ gives the number of points p that Terrance still needs to score. Determine whether $p = 7$ or $p = 13$ is a solution of the equation, and tell what the solution means.

11. Madeline has used 50 sheets of a roll of paper towels, which is $\frac{5}{8}$ of the entire roll. The equation $\frac{5}{8}s = 50$ can be used to find the number of sheets s in a full roll. Determine whether $s = 32$ or $s = 80$ is a solution of the equation, and tell what the solution means.