PROBLEM SET 4: Identifying the Number of Solutions to Equations

› Determine whether each equation has one solution, no solutions, or an infinite number of solutions. If the equation has a solution identify it.

1. $2x = 18$

   One solution

   $x = 9$

2. $x = 4x$

3. $6 = x + 3$

4. $15 = 5 \cdot x$

5. $x + 9 = 9 + x$

6. $x - 1 = x + 1$

7. $20 - x = 7$

8. $x = 1x$

Name _____ Date _____

PROBLEM SET 1: Identifying Solutions to Equations

› Use substitution to determine which of the given values is the solution to each equation.

1 {4, 9, 13, 21, 25}

$a + 0 = 13$

$\mathbf{(13) + 0 = 13}$

$\mathbf{a = 13}$

2 {18, 34, 36, 100}

$2b = 36$

3 {17, 24, 37, 81, 220}

$c = 110(2)$

4 {1, 3, 5, 7, 9, 11}

$d - 7 = 1 + 3$

5 {0, 4, 9, 13, 15}

$2 + f = 13 - 2$

6 {2, 6, 12, 18, 36}

$3 = \frac{g}{6}$