

# Equations with Special Solutions

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

Solve each equation. Show your work!!

1.  $2x + 2x + 2 = 4x + 2$

2.  $3(x - 1) = 2x + 9$

3.  $2x + 8 = 2(x + 4)$

4.  $3(x + 1) = 3x + 5$

5.  $4x + 2x + 2 = 3x - 7$

6.  $x + 2x + 7 = 3x - 7$

7.  $4(x - 1) = \frac{1}{2}(x - 8)$

8.  $10 + x = 4\left(\frac{1}{4}x + 2\right)$

9.  $4(2x + 1) = 5x + 3x + 9$

10.  $5(x + 2) - 3x = 2(x + 5)$

11.  $4(x + 1) = 4(2 - x)$

12.  $4(x + 3) - 8 = \frac{1}{2}(8x + 10)$

Create a multi-step equation with the given number of solutions.

13. Many solutions

14. One solution

15. No solution