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

Fill in the blanks to create an equations with the given solution.

13. Many solutions

$5x + 7 =$ ___$x +$ 3 $+ 2x +$ ___

14. One solution

$2x +$ ___ $=$ ___$x +$ 3

15. No solution

$10x + 12=$ ___$x +$ 7 $+ 4x +$ ___