2.3A Solving Multi-Step Equations (3-Step)

Solve the equation.

Ex.)
$$4x - 12 = 2x + 5 = -5$$

$$2x \cancel{X} = 5$$

$$\cancel{X} = -7$$

$$\frac{2x}{2} = \frac{4}{2}$$

$$x = 2$$

Steps

1) Eliminate all parentheses by distributing. (If possible)
2) Combine all like terms. (If possible)
3) Add or subtract to isolate the variable term.
4) Multiply or divide to isolate term completely.
   - Whatever you do to one side you must do to the other.

Solve the equation. (Must show all steps)

1. $7x - 3 = 25$

2. $-2x + 7 = 15$

3. $8 = 3x - 1$

4. $4x - 11 = -3$

5. $8 + 5x = -7$

6. $-2x - 5 = -13$

7. $\frac{x}{2} + 5 = 9$

8. $\frac{x}{3} - 5 = 2$

9. $6 + \frac{x}{4} = -1$

10. $\frac{1}{5}x + 4 = 6$

11. $\frac{2}{3}x - 2 = 4$

12. $1 = \frac{3}{5}x + 7$

13. $5(x + 4) = 45$

14. $3(x - 2) = 15$

15. $16 = 4(x - 5)$