**Solving Equations Notes** Name: _____

**Objective:** To be able to solve equations and provide reasoning for each step.

**Directions:** Solve each equation and justify your steps using the properties of equality.

**Example:** $\frac{8x}{3} + 12 = 28$

1. $\frac{8x}{3} + 12 = 28$      *1. Given*

2. $\frac{8x}{3} = 16$      *2. Subtraction prop. of equality*

3. $8x = 48$      *3. Multiplication prop. of equality*

4. $x = 6$      *4. Division prop. of equality*

---

1. $7x + 4 = 46$               2. $3 + 2x = -11$

3. $-6 + 8x = 16$

4. $27 = 9 - 5x$

5. $\frac{x}{3} - 16 = 3$

6. $-14 + \frac{x}{4} = 6$

7. $\frac{2x}{5} = 15$

8. $12 = \frac{3x}{7} + 6$

9. $13 = \frac{x+4}{2}$

10. $\frac{x-9}{-2} = 12$