Math 6 NOTES (8.1) Name _____

Solving One-Step EQUATIONS – Addition/Subtraction

- An equation is a math sentence that **DOES** contain an **_____ .**
- The goal of solving an equation is to **find the value of the variable.**
  - We do this by **isolating** the variable on one side of the equation using **Inverse Operations!**
    - **Inverse operations** "undo" each other!

Inverse of addition? _____

Inverse of subtraction? _____

Inverse of multiplication? _____

Inverse of division? _____

Examples:

John has x apples. If he adds 5 apples to his pile, he will have 8 apples.
What is the value of x?

Write an equation:
$$x + 5 = 8$$
$$-5 = -5$$
$$\mathbf{x = 3}$$

Answer: John had 3 apples before he added to his pile.

Check: $3 + 5 = 8$

Maddie has *x* dollars. After spending $90 on a purse, she will have $45. What is the value of *x*?

Write an equation:
$$x - 90 = 45$$
$$+90 = +90$$
$$\mathbf{x = 135}$$

Answer: Maddie had $135 before she bought the purse.

Check: $135 - 90 = 45$

Let's Practice!

1. $x + 2 = 10$

$$x + 0 = \square$$

Check:

2. $y - 8 = 15$

$$y - 0 = \square$$

Check:

3. $a + 9 = 2$

$$a + 0 = \square$$

Check:

Math 6 Practice (8.1)

Solve

1) $x + 7 = 18$

2) $a - 15 = 22$

3) $83 = y - 17$

4) $c - 3 = 6$

5) $x + 8 = 18$

6) $y - 5 = 4$

7) $6 + z = 10$

8) $p - 5 = 15$

9) $4 + m = 12$

10) $g + 44 = 50$

11) $x - 9 = 2$

12) $a + 10 = 17$

13) $y - 4 = 19$

14) $b - 17 = 12$

15) $3 = d + 2$

16) $i + 13 = 27$

17) $y - 4 = 6$

18) $x + 5 = 8$

19) $x - 4 = 9$

20) $24 = n + 13$

21) $d - 9 = 11$