

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 ?

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

Write an equation:

$$\begin{array}{r} x + 5 = 8 \\ - 5 = -5 \\ \hline x = 3 \end{array}$$

Write an equation:

$$\begin{array}{r} x - 90 = 45 \\ + 90 = +90 \\ \hline x = 135 \end{array}$$

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

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

Check: $3 + 5 = 8$

Check: $135 - 90 = 45$

Let's Practice!

1. $x + 2 = 10$

$$\begin{array}{r} \square \\ \square \\ \hline \end{array}$$

$$x + 0 = \square$$

2. $y - 8 = 15$

$$\begin{array}{r} \square \\ \square \\ \hline \end{array}$$

$$y - 0 = \square$$

3. $a + 9 = 2$

$$\begin{array}{r} \square \\ \square \\ \hline \end{array}$$

$$a + 0 = \square$$

Check:

Check:

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) $d - 9 = 11$