

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) $d - 9 = 11$

Solving One-Step Equations: Addition and Subtraction

You must show your work to get credit! Check your answer.

1) $y + 6 = 20$

2) $x - 10 = 12$

3) $12 + z = 15$

4) $2 + n = 16$

5) $a + 4 = 14$

6) $m - 5 = 10$

7) $4 + b = 30$

8) $10 + c = 25$

9) $x - 60 = 20$

10) $g - 16 = 4$

11) $x - 15 = 20$

12) $w + 14 = 18$

13) $r - 18 = 27$

14) $13 + k = 25$

15) $f - 16 = 34$

4-2**Practice: Skills*****Solving Addition and Subtraction Equations*****Solve each equation. Check your solution.**

1. $x + 2 = 8$

2. $y + 7 = 9$

3. $a + 5 = 12$

4. $16 = n + 6$

5. $q + 10 = 22$

6. $m + 9 = 17$

7. $b - 4 = 9$

8. $8 = c - 4$

9. $11 = t - 7$

10. $d - 10 = 8$

11. $x - 11 = 9$

12. $2 = z - 14$

13. $72 = 24 + w$

14. $86 + y = 99$

15. $6 + y = -8$

16. $-5 = m + 11$

17. $n + 3.5 = 6.7$

18. $x + 1.6 = 0.8$

19. $98 = t - 18$

20. $12 = g - 56$

21. $x - 18 = -2$

22. $p - 11 = -5$

23. $a - 1.5 = 4.2$

24. $7.4 = n - 2.6$