

Addition Equations

To solve each addition equation below, subtract the value being added to the variable from both sides of the equation. Example:

$$3 + y = 9$$

$$(3-3) + y = 9 \quad \text{Subtracting 3 from the left side will leave only } y \text{ on the left side of the equation.}$$

$$y = 9 - 3 \quad \text{Now subtract 3 from the right side of the equation.}$$

$$y = 6 \quad \text{Value of } y \text{ is 6. Substitute 6 for } y \text{ to check your answer: } 3 + 6 = 9.$$

Note: We could have simply subtracted 3 from 9 to obtain the answer in this simple equation. The steps above are provided so that the fundamentals of solving equations are understood. These are important concepts for building an understanding on how to solve more complex equations.

$$2 + x = 30$$

$$7 + y = 38$$

$$14 + a = 28$$

$$7 + t = 88$$

$$3 + v = 72$$

$$6 + a = 24$$

$$4 + y = 20$$

$$2 + c = 27$$

$$8 + y = 72$$

$$47 + d = 74$$

$$27 + i = 40$$

$$18 + k = 56$$

$$14 + y = 37$$

$$y + 60 = 80$$

$$a + 42 = 84$$

Addition Equations Answer Key

To solve each addition equation below, subtract the value being added to the variable from both sides of the equation. Example:

$$3 + y = 9$$

$(3-3) + y = 9$ Subtracting 3 from the left side will leave only y on the left side of the equation.

$y = 9 - 3$ Now subtract 3 from the right side of the equation.

$y = 6$ Value of y is 6. Substitute 6 for y to check your answer: $3 + 6 = 9$.

Note: We could have simply subtracted 3 from 9 to obtain the answer in this simple equation. The steps above are provided so that the fundamentals of solving equations are understood. These are important concepts for building an understanding on how to solve more complex equations.

$$\begin{aligned} 2 + x &= 30 \\ (2-2) + x &= 30 \\ x &= 30 - 2 \\ x &= \mathbf{28} \end{aligned}$$

$$\begin{aligned} 7 + y &= 38 \\ (7-7) + y &= 38 \\ y &= 38 - 7 \\ y &= \mathbf{31} \end{aligned}$$

$$\begin{aligned} 14 + a &= 28 \\ 14-14 + a &= 28 \\ a &= 28 - 14 \\ a &= \mathbf{14} \end{aligned}$$

$$\begin{aligned} 7 + t &= 88 \\ (7-7) + t &= 88 \\ t &= 88-7 \\ t &= \mathbf{81} \end{aligned}$$

$$\begin{aligned} 3 + v &= 72 \\ (3-3) + v &= 72 \\ v &= 72 - 3 \\ v &= \mathbf{69} \end{aligned}$$

$$\begin{aligned} 6 + a &= 24 \\ (6-6) + a &= 24 \\ a &= 24 - 6 \\ a &= \mathbf{18} \end{aligned}$$

$$\begin{aligned} 4 + y &= 20 \\ (4-4) - y &= 20 \\ y &= 20 - 4 \\ y &= \mathbf{16} \end{aligned}$$

$$\begin{aligned} 2 + c &= 27 \\ (2-2) + c &= 27 \\ c &= 27 - 2 \\ c &= \mathbf{25} \end{aligned}$$

$$\begin{aligned} 8 + y &= 72 \\ (8-8) + y &= 72 \\ y &= 72 - 8 \\ y &= \mathbf{64} \end{aligned}$$

$$\begin{aligned} 47 + d &= 74 \\ (47-47) + d &= 74 \\ d &= 74 - 47 \\ d &= \mathbf{27} \end{aligned}$$

$$\begin{aligned} 27 + i &= 40 \\ (27-27) + i &= 40 \\ i &= 40 - 27 \\ i &= \mathbf{13} \end{aligned}$$

$$\begin{aligned} 18 + k &= 56 \\ (18-18) - k &= 56 \\ k &= 56 - 18 \\ k &= \mathbf{38} \end{aligned}$$

$$\begin{aligned} 14 + y &= 37 \\ (14-14) + y &= 37 \\ y &= 37 - 14 \\ y &= \mathbf{23} \end{aligned}$$

$$\begin{aligned} y + 60 &= 80 \\ y + (60-60) &= 80 \\ y &= 80 - 60 \\ y &= \mathbf{20} \end{aligned}$$

$$\begin{aligned} a + 42 &= 84 \\ a + (42-42) &= 84 \\ a &= 84 - 42 \\ a &= \mathbf{42} \end{aligned}$$