

Solving Equations With Parentheses

When solving an equation with parentheses, you can use inverse operations to isolate the variable. Let's try it!

Solve $3(x + 5) = 21$ for x .

$$\frac{3(x + 5)}{3} = \frac{21}{3}$$

Here, the expression $x + 5$ is multiplied by 3. To get $x + 5$ alone, undo the multiplication. Divide both sides of the equation by 3.

$$x + 5 = 7$$

Then, simplify.

$$x + 5 - 5 = 7 - 5$$

Next, to get x alone, subtract 5 from both sides of the equation.

$$x = 2$$

Then, simplify to solve.



Solve each equation by first dividing to undo the multiplication.

1

$$6(a - 8) = 12$$

2

$$-20 = 4(g + 3)$$

3

$$-7(s - 9) = 56$$

4

$$48 = 12(w + 17)$$

5

$$108 = 9(k - 14)$$

6

$$15(d + 16) = 75$$

7

$$8.4 = 2(b - 7.8)$$

8

$$\frac{1}{3}(n - 5) = 9$$

9

$$6 = \frac{2}{5}(h + 8)$$

10

$$-2.5(e + 17.4) = -50$$

11

$$-\frac{1}{2} = \frac{1}{4}(z - 1)$$

12

$$8(m + 11.2) = 37.6$$