

# Two-step equations

Solve for the letter in each equation. Show your working, and write the answer on the line.

Name \_\_\_\_\_ Date \_\_\_\_\_

---

1.  $m + 8 = 28$

m = \_\_\_\_\_

2.  $4a + 4 = 12$

a = \_\_\_\_\_

3.  $4n = 8$

n = \_\_\_\_\_

4.  $\frac{x}{5} + 1 = 10$

x = \_\_\_\_\_

5.  $20 = m - 1$

m = \_\_\_\_\_

6.  $4a - 6 = 38$

a = \_\_\_\_\_

7.  $\frac{p}{8} = 4$

p = \_\_\_\_\_

8.  $42 = 2 + 4p$

p = \_\_\_\_\_

9.  $p + 16 = 32$

p = \_\_\_\_\_

10.  $1 + 5k = 16$

k = \_\_\_\_\_

11.  $9a = 27$

a = \_\_\_\_\_

12.  $\frac{m}{6} + 3 = 12$

m = \_\_\_\_\_

# Two-step equations: answer key

Each equation worked one step a line. What was done to both sides is beside each step.

---

1.  **$m + 8 = 28$**

**$m = 20$**  Subtract 8 from both sides.

Check:  $20 + 8 = 28$

2.  **$4a + 4 = 12$**

**$4a = 8$**  Subtract 4 from both sides.

**$a = 2$**  Divide both sides by 4.

Check:  $4(2) + 4 = 12$

3.  **$4n = 8$**

**$n = 2$**  Divide both sides by 4.

Check:  $4(2) = 8$

4.  **$\frac{x}{5} + 1 = 10$**

**$\frac{x}{5} = 9$**  Subtract 1 from both sides.

**$x = 45$**  Multiply both sides by 5.

Check:  $\frac{45}{5} + 1 = 10$

5.  **$20 = m - 1$**

**$21 = m$**  Add 1 to both sides.

**$m = 21$**

Check:  $20 = 21 - 1$

6.  **$4a - 6 = 38$**

**$4a = 44$**  Add 6 to both sides.

**$a = 11$**  Divide both sides by 4.

Check:  $4(11) - 6 = 38$

7.  **$\frac{p}{8} = 4$**

**$p = 32$**  Multiply both sides by 8.

Check:  $\frac{32}{8} = 4$

8.  **$42 = 2 + 4p$**

**$40 = 4p$**  Subtract 2 from both sides.

**$10 = p$**  Divide both sides by 4.

**$p = 10$**

Check:  $42 = 2 + 4(10)$

9.  **$p + 16 = 32$**

**$p = 16$**  Subtract 16 from both sides.

Check:  $16 + 16 = 32$

10.  **$1 + 5k = 16$**

**$5k = 15$**  Subtract 1 from both sides.

**$k = 3$**  Divide both sides by 5.

Check:  $1 + 5(3) = 16$

11.  **$9a = 27$**

**$a = 3$**  Divide both sides by 9.

Check:  $9(3) = 27$

12.  **$\frac{m}{6} + 3 = 12$**

**$\frac{m}{6} = 9$**  Subtract 3 from both sides.

**$m = 54$**  Multiply both sides by 6.

Check:  $\frac{54}{6} + 3 = 12$