

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

One-Step Integer Equations

Solve each equation. Check your exact answer by substitution.

1. $-16 = w - 8$

6. $-9 = \frac{g}{-3}$

2. $6z = 66$

7. $n + 3 = 0$

3. $x + 3 = 10$

8. $28 = 2n$

4. $2 = q - 6$

9. $4h = 16$

5. $6 = \frac{w}{-6}$

10. $h + 7 = 16$

One-Step Integer Equations

Answer Key

Solve each equation. Check your exact answer by substitution.

1. $-16 = w - 8$

$$-1 \quad w - 16 = -8$$

Move variable terms by doing the same operation to both sides.

$$-1 \quad w = 8$$

Move constants by doing the same operation to both sides.

$$w = -8$$

Exact value. Divide both sides by the nonzero coefficient.

$$-16 = -8 - 8$$

Substitute the exact value into the original equation.

2. $6z = 66$

$$z = 11$$

Exact value. Divide both sides by the nonzero coefficient.

$$6 \times 11 = 66$$

Substitute the exact value into the original equation.

3. $x + 3 = 10$

$$x = 7$$

Exact value. Move constants by doing the same operation to both sides.

$$7 + 3 = 10$$

Substitute the exact value into the original equation.

4. $2 = q - 6$

$$-1 \quad q + 2 = -6$$

Move variable terms by doing the same operation to both sides.

$$-1 \quad q = -8$$

Move constants by doing the same operation to both sides.

$$q = 8$$

Exact value. Divide both sides by the nonzero coefficient.

$$2 = 8 - 6$$

Substitute the exact value into the original equation.

5. $6 = \frac{w}{-6}$

$$6 = -\frac{1}{6}w$$

Rewrite each side in equivalent affine form, distributing and collecting when needed.

$$\frac{1}{6}w + 6 = 0$$

Move variable terms by doing the same operation to both sides.

$$\frac{1}{6}w = -6$$

Move constants by doing the same operation to both sides.

$$w = -36$$

Exact value. Divide both sides by the nonzero coefficient.

$$6 = \frac{-36}{-6}$$

Substitute the exact value into the original equation.

One-Step Integer Equations

Answer Key

Solve each equation. Check your exact answer by substitution.

6. $-9 = \frac{g}{-3}$

$$-9 = -\frac{1}{3}g$$

Rewrite each side in equivalent affine form, distributing and collecting when needed.

$$\frac{1}{3}g - 9 = 0$$

Move variable terms by doing the same operation to both sides.

$$\frac{1}{3}g = 9$$

Move constants by doing the same operation to both sides.

$$g = 27$$

Exact value. Divide both sides by the nonzero coefficient.

$$-9 = \frac{27}{-3}$$

Substitute the exact value into the original equation.

7. $n + 3 = 0$

$$n = -3$$

Exact value. Move constants by doing the same operation to both sides.

$$-3 + 3 = 0$$

Substitute the exact value into the original equation.

8. $28 = 2n$

$$-2 \quad n + 28 = 0$$

Move variable terms by doing the same operation to both sides.

$$-2 \quad n = -28$$

Move constants by doing the same operation to both sides.

$$n = 14$$

Exact value. Divide both sides by the nonzero coefficient.

$$28 = 2 \times 14$$

Substitute the exact value into the original equation.

9. $4h = 16$

$$h = 4$$

Exact value. Divide both sides by the nonzero coefficient.

$$4 \times 4 = 16$$

Substitute the exact value into the original equation.

10. $h + 7 = 16$

$$h = 9$$

Exact value. Move constants by doing the same operation to both sides.

$$9 + 7 = 16$$

Substitute the exact value into the original equation.