

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

Two-Step Integer Equations

Solve exactly, then round the final value to the nearest hundredth.

1. $\frac{(s + (-10))}{-5} = 7$

6. $-2 = \frac{2}{5} \times w + 2$

2. $-5 = \frac{2}{3} \times z + 5$

7. $\frac{(z + 6)}{8} = 13$

3. $-7 = \frac{2}{3} \times y + (-6)$

8. $10 = \frac{(8 - h)}{-7}$

4. $10 = \frac{(6 - b)}{2}$

9. $5p + 6 = 13$

5. $5x + 8 = 6$

10. $5k + (-5) = 10$

Two-Step Integer Equations

Answer Key

Solve exactly, then round the final value to the nearest hundredth.

1.
$$\frac{(s + (-10))}{-5} = 7$$

-
$$\frac{1}{5}s + 2 = 7$$

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

-
$$\frac{1}{5}s = 5$$

Move constants by doing the same operation to both sides.

$$s = -25$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (s): -25.00

$$\frac{(-25 + (-10))}{-5} = 7$$

Substitute the exact value into the original equation.

2.
$$-5 = \frac{2}{3}z + 5$$

-
$$-5 = \frac{2}{3}z + 5$$

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

-
$$\frac{2}{3}z - 5 = 5$$

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

-
$$\frac{2}{3}z = 10$$

Move constants by doing the same operation to both sides.

$$z = -15$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (z): -15.00

-
$$-5 = \frac{2}{3} \times (-15) + 5$$

Substitute the exact value into the original equation.

3.
$$-7 = \frac{2}{3}y + (-6)$$

-
$$-7 = \frac{2}{3}y - 6$$

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

-
$$\frac{2}{3}y - 7 = -6$$

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

-
$$\frac{2}{3}y = 1$$

Move constants by doing the same operation to both sides.

$$y = -\frac{3}{2}$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (y): -1.50

-
$$-7 = \frac{2}{3} \times \left(-\frac{3}{2}\right) + (-6)$$

Substitute the exact value into the original equation.

Two-Step Integer Equations

Answer Key

Solve exactly, then round the final value to the nearest hundredth.

4. $10 = \frac{(6 - b)}{2}$

$$10 = -\frac{1}{2}b + 3$$

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

$$\frac{1}{2}b + 10 = 3$$

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

$$\frac{1}{2}b = -7$$

Move constants by doing the same operation to both sides.

$$b = -14$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (b): -14.00

$$10 = \frac{(6 - (-14))}{2}$$

Substitute the exact value into the original equation.

5. $5x + 8 = 6$

$$5x = -2$$

Move constants by doing the same operation to both sides.

$$x = -\frac{2}{5}$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (x): -0.40

$$5 \times \left(-\frac{2}{5}\right) + 8 = 6$$

Substitute the exact value into the original equation.

6. $-2 = \frac{2}{5}w + 2$

$$-2 = \frac{2}{5}w + 2$$

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

$$-\frac{2}{5}w - 2 = 2$$

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

$$-\frac{2}{5}w = 4$$

Move constants by doing the same operation to both sides.

$$w = -10$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (w): -10.00

$$-2 = \frac{2}{5} \times (-10) + 2$$

Substitute the exact value into the original equation.

Two-Step Integer Equations

Answer Key

Solve exactly, then round the final value to the nearest hundredth.

7. $\frac{(z + 6)}{8} = 13$

$$\frac{1}{8}z + \frac{3}{4} = 13$$

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

$$\frac{1}{8}z = \frac{49}{4}$$

Move constants by doing the same operation to both sides.

$$z = 98$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (z): 98.00

$$\frac{(98 + 6)}{8} = 13$$

Substitute the exact value into the original equation.

8. $10 = \frac{(8 - h)}{-7}$

$$10 = \frac{1}{7}h - \frac{8}{7}$$

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

$$- \frac{1}{7}h + 10 = - \frac{8}{7}$$

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

$$- \frac{1}{7}h = - \frac{78}{7}$$

Move constants by doing the same operation to both sides.

$$h = 78$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (h): 78.00

$$10 = \frac{(8 - 78)}{-7}$$

Substitute the exact value into the original equation.

9. $5p + 6 = 13$

$$5p = 7$$

Move constants by doing the same operation to both sides.

$$p = \frac{7}{5}$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (p): 1.40

$$5 \times \frac{7}{5} + 6 = 13$$

Substitute the exact value into the original equation.

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Two-Step Integer Equations

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Solve exactly, then round the final value to the nearest hundredth.

10. $5k + (-5) = 10$

$$5k - 5 = 10$$

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

$$5k = 15$$

Move constants by doing the same operation to both sides.

$$k = 3$$

Exact value. Divide both sides by the nonzero coefficient.

Rounded value (k): 3.00

$$5 \times 3 + (-5) = 10$$

Substitute the exact value into the original equation.