

Math Sheet

Name _____ Score _____ / 10 Teacher _____ Date _____

Mixed-Number One-Step Equations

Solve each equation. Check your exact answer by substitution.

1. $4 = \frac{d}{-5}$

6. $-14.3 = y - 7.1$

2. $8.2 = \frac{n}{-0.5}$

7. $\frac{5}{7}x = 1$

3. $-\frac{11}{12} = x - \frac{2}{3}$

8. $7m = 35$

4. $w + 4 = 10.1$

9. $r + 8 = 19$

5. $-16 = f - 6$

10. $g + \frac{2}{5} = 1\frac{11}{15}$

Mixed-Number One-Step Equations

Answer Key

Solve each equation. Check your exact answer by substitution.

1. $4 = \frac{d}{-5}$

$$4 = -\frac{1}{5}d$$

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

$$\frac{1}{5}d + 4 = 0$$

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

$$\frac{1}{5}d = -4$$

Move constants by doing the same operation to both sides.

$$d = -20$$

Exact value. Divide both sides by the nonzero coefficient.

$$4 = \frac{-20}{-5}$$

Substitute the exact value into the original equation.

2. $8.2 = \frac{n}{-0.5}$

$$8.2 = -2n$$

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

$$2n + 8.2 = 0$$

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

$$2n = -8.2$$

Move constants by doing the same operation to both sides.

$$n = -4.1$$

Exact value. Divide both sides by the nonzero coefficient.

$$8.2 = \frac{-4.1}{-0.5}$$

Substitute the exact value into the original equation.

3. $-\frac{11}{12} = x - \frac{2}{3}$

$$-1 - x - \frac{11}{12} = -\frac{2}{3}$$

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

$$-1 - x = \frac{1}{4}$$

Move constants by doing the same operation to both sides.

$$x = -\frac{1}{4}$$

Exact value. Divide both sides by the nonzero coefficient.

$$-\frac{11}{12} = -\frac{1}{4} - \frac{2}{3}$$

Substitute the exact value into the original equation.

4. $w + 4 = 10.1$

$$w = 6.1$$

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

$$6.1 + 4 = 10.1$$

Substitute the exact value into the original equation.

Mixed-Number One-Step Equations

Answer Key

Solve each equation. Check your exact answer by substitution.

5. $-16 = f - 6$

$$-1 \quad f - 16 = -6$$

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

$$-1 \quad f = 10$$

Move constants by doing the same operation to both sides.

$$f = -10$$

Exact value. Divide both sides by the nonzero coefficient.

$$-16 = -10 - 6$$

Substitute the exact value into the original equation.

6. $-14.3 = y - 7.1$

$$-1 \quad y - 14.3 = -7.1$$

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

$$-1 \quad y = 7.2$$

Move constants by doing the same operation to both sides.

$$y = -7.2$$

Exact value. Divide both sides by the nonzero coefficient.

$$-14.3 = -7.2 - 7.1$$

Substitute the exact value into the original equation.

7. $\frac{5}{7}x = 1$

$$x = 1\frac{2}{5}$$

Exact value. Divide both sides by the nonzero coefficient.

$$\frac{5}{7} \times 1\frac{2}{5} = 1$$

Substitute the exact value into the original equation.

8. $7m = 35$

$$m = 5$$

Exact value. Divide both sides by the nonzero coefficient.

$$7 \times 5 = 35$$

Substitute the exact value into the original equation.

9. $r + 8 = 19$

$$r = 11$$

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

$$11 + 8 = 19$$

Substitute the exact value into the original equation.

10. $g + \frac{2}{5} = 1\frac{11}{15}$

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

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

$$1\frac{1}{3} + \frac{2}{5} = 1\frac{11}{15}$$

Substitute the exact value into the original equation.