

Name : \_\_\_\_\_

## Multi-Step Equations: Fractions

Sheet 1

Solve each equation.

1)  $3\left(a - \frac{2}{3}\right) = \frac{3}{4}a + 2\frac{1}{4}$

2)  $\frac{z}{2} - \frac{3}{5} = -\frac{2}{3}z + \frac{1}{6}$

3)  $\frac{7}{4}x - 3 = 2 + \frac{9}{2}x$

4)  $\frac{3c + 8}{3} = \frac{1}{2} + \frac{c}{4}$

5)  $\frac{1}{3} - \frac{2}{9}m = 15 + m$

6)  $\frac{1}{2}(q + 1) = \frac{4}{3} - q$

7)  $\frac{1}{6}r + 2 = 4\frac{1}{9}r + \frac{8}{3}$

8)  $\frac{2}{3} - \frac{3}{2}y + \frac{1}{3}y + 4 = 0$

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## Answer Key

### Multi-Step Equations: Fractions

Sheet 1

Solve each equation.

1)  $3\left(a - \frac{2}{3}\right) = \frac{3}{4}a + 2\frac{1}{4}$

**$a = \frac{17}{9}$  or  $1\frac{8}{9}$**

2)  $\frac{z}{2} - \frac{3}{5} = -\frac{2}{3}z + \frac{1}{6}$

**$z = \frac{23}{35}$**

3)  $\frac{7}{4}x - 3 = 2 + \frac{9}{2}x$

**$x = -\frac{20}{11}$  or  $-1\frac{9}{11}$**

4)  $\frac{3c + 8}{3} = \frac{1}{2} + \frac{c}{4}$

**$c = -\frac{26}{9}$  or  $-2\frac{8}{9}$**

5)  $\frac{1}{3} - \frac{2}{9}m = 15 + m$

**$m = -12$**

6)  $\frac{1}{2}(q + 1) = \frac{4}{3} - q$

**$q = \frac{5}{9}$**

7)  $\frac{1}{6}r + 2 = 4\frac{1}{9}r + \frac{8}{3}$

**$r = -\frac{12}{71}$**

8)  $\frac{2}{3} - \frac{3}{2}y + \frac{1}{3}y + 4 = 0$

**$y = 4$**