

Solving Algebraic Equations Containing Fractions

(Clear of Fractions)

MrB4math.com

1)

7
LCD

$$x - \frac{3}{7} = \frac{2}{7}$$

$$7x - 3 = 2$$

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

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

4)

15
LCD

$$x - \frac{4}{5} = \frac{2}{15}$$

$$15x - 12 = 2$$

$$\frac{15x}{15} = \frac{14}{15}$$

$$x = \frac{14}{15}$$

2)

5 10 15 20
LCD

$$\frac{3}{14}a = \frac{2}{15}$$

$$\frac{15a}{15} = \frac{8}{15}$$

$$a = \frac{8}{15}$$

5)

10 20 30
LCD

$$\frac{1}{10} - \frac{r}{6} = \frac{3}{10}$$

$$3 - 5r = -9$$

$$\frac{-5r}{-5} = \frac{-12}{-5}$$

$$r = \frac{12}{5} \text{ or } 2\frac{2}{5}$$

3)

5
LCD

$$-\frac{4}{5} = 3y$$

$$-\frac{4}{15} = \frac{15y}{15}$$

$$-\frac{4}{15} = y$$

6)

7
LCD

$$-3\frac{4}{7}x = 5$$

$$-\frac{25}{7}x = 5$$

$$\frac{-25x}{-25} = \frac{35}{-25}$$

$$x = -\frac{7}{5}$$

Solving Algebraic Equations Containing Fractions

(Clear of Fractions)

MrB4math.com

7)

$$k + 4 - \frac{k}{7} = \frac{2}{3}$$

$$21k + 84 - 3k = 14$$

$$\frac{18k}{18} = \frac{-70}{18}$$

$$k = -\frac{35}{9} \text{ or } -3\frac{8}{9}$$

21 LCD

84
14
-70

9)

$$\frac{3}{14} + \frac{r}{15} - \frac{5}{16} = \frac{8}{15}r$$

$$45 + 4r - 50 = 32r$$

$$\frac{-5}{28} = \frac{28r}{28}$$

$$-\frac{5}{28} = r$$

60 LCD

8)

$$\frac{y}{4} - y = \frac{2}{9} - \frac{5}{9}$$

$$\frac{y}{4} - y = -\frac{3}{9}$$

$$9y - 36y = -12$$

$$\frac{-27y}{-27} = \frac{-12}{-27}$$

$$y = \frac{4}{9}$$

36 LCD

10)

$$\frac{3}{10} = 7x + \frac{1}{4} - 10x$$

$$\frac{3}{10} = -3x + \frac{1}{4}$$

$$6 = -60x + 5$$

$$\frac{1}{-60} = \frac{-60x}{-60}$$

$$-\frac{1}{60} = x$$

20 LCD