

Solving Basic Equations with Multiplication or Division - Set 1

SE2 1

Instructions: Use multiplication or division to solve each equation.

$$1 \quad \frac{4x}{4} = \frac{12}{4}$$

$$x = 3$$

$$2 \quad (\cancel{5}) \frac{x}{5} = 7(5)$$

$$x = 35$$

$$3 \quad (\cancel{3}) \frac{x}{3} = 9(3)$$

$$x = 27$$

$$4 \quad \frac{72}{9} = \frac{\cancel{9}x}{\cancel{9}}$$

$$8 = x$$

or $x = 8$

$$5 \quad \frac{\cancel{12}x}{\cancel{12}} = \frac{144}{12}$$

$$x = 12$$

$$6 \quad (4)10 = \frac{x}{\cancel{4}}(\cancel{4})$$

$$40 = x$$

or $x = 40$

$$7 \quad (\cancel{x}) \frac{24}{x} = 6(x)$$

$$\frac{24}{6} = \frac{\cancel{6}x}{\cancel{6}}$$

$$4 = x \quad \text{or} \quad x = 4$$

$$8 \quad \frac{\cancel{5}x}{\cancel{5}} = \frac{105}{5}$$

$$x = 21$$

$$9 \quad (\cancel{12}) \frac{x}{12} = 9(12)$$

$$x = 108$$

$$10 \quad (x)15 = \frac{75}{x}(\cancel{x})$$

$$\frac{\cancel{15}x}{\cancel{15}} = \frac{75}{15}$$

$$x = 5$$

$$11 \quad (\cancel{7}) \frac{x}{7} = 22(7)$$

$$x = 154$$

$$12 \quad \frac{\cancel{2}x}{\cancel{2}} = \frac{142}{2}$$

$$x = 71$$

Solving Basic Equations with Multiplication or Division - Set 2

SE2 2

Instructions: Use multiplication or division to solve each equation.

$$\begin{aligned} 1 \quad \frac{40}{8} &= \frac{8x}{8} \\ 5 &= x \\ \text{or } x &= 5 \end{aligned}$$

$$\begin{aligned} 2 \quad (\times) 12 &= \frac{48}{x} (\times) \\ \frac{12x}{12} &= \frac{48}{12} \\ x &= 4 \end{aligned}$$

$$\begin{aligned} 3 \quad (\div) \frac{x}{8} &= 8 (8) \\ x &= 64 \end{aligned}$$

$$\begin{aligned} 4 \quad \frac{11x}{11} &= \frac{66}{11} \\ x &= 6 \end{aligned}$$

$$\begin{aligned} 5 \quad (\times) \frac{32}{x} &= 4 (x) \\ \frac{32}{4} &= \frac{4x}{4} \\ 8 &= x \quad \text{or } x = 8 \end{aligned}$$

$$\begin{aligned} 6 \quad (\div) \frac{x}{3} &= 24 (3) \\ x &= 72 \end{aligned}$$

$$\begin{aligned} 7 \quad \frac{6x}{6} &= \frac{78}{6} \\ x &= 13 \end{aligned}$$

$$\begin{aligned} 8 \quad (\times) \frac{x}{4} &= 14 (4) \\ x &= 56 \end{aligned}$$

$$\begin{aligned} 9 \quad (\times) 7 &= \frac{84}{x} (\times) \\ \frac{7x}{7} &= \frac{84}{7} \\ x &= 12 \end{aligned}$$

$$\begin{aligned} 10 \quad \frac{65}{5} &= \frac{5x}{5} \\ 13 &= x \\ \text{or } x &= 13 \end{aligned}$$

$$\begin{aligned} 11 \quad \frac{3x}{3} &= \frac{135}{3} \\ x &= 45 \end{aligned}$$

$$\begin{aligned} 12 \quad (20) 3 &= \frac{x}{20} (20) \\ 60 &= x \\ \text{or } x &= 60 \end{aligned}$$

Solving Basic Equations (with Decimals)

SE2 3

Instructions: Use multiplication or division to solve each equation. You can use a calculator to do the decimal arithmetic if you'd like to.

$$\begin{aligned} 1 \quad \frac{5.0}{2.5} &= \frac{\cancel{2.5}x}{\cancel{2.5}} \\ 2 &= x \\ \text{or } x &= 2 \end{aligned}$$

$$\begin{aligned} 2 \quad (\cancel{2}) \frac{x}{\cancel{2}} &= 1.6 (2) \\ x &= 3.2 \end{aligned}$$

$$\begin{aligned} 3 \quad (\cancel{x}) 1.5 &= \frac{0.5}{\cancel{x}} (\cancel{x}) \\ \frac{\cancel{1.5}x}{\cancel{1.5}} &= \frac{0.5}{1.5} \\ x &= 0.\bar{3} \end{aligned}$$

$$\begin{aligned} 4 \quad \frac{\cancel{0.1}x}{\cancel{0.1}} &= \frac{2.4}{0.1} \\ x &= 24 \end{aligned}$$

$$\begin{aligned} 5 \quad (\cancel{2.1}) \frac{x}{\cancel{2.1}} &= 1.6 (2.1) \\ x &= 3.36 \end{aligned}$$

$$\begin{aligned} 6 \quad (\cancel{x}) \frac{3.5}{\cancel{x}} &= 2.5 (\cancel{x}) \\ \frac{3.5}{2.5} &= \frac{\cancel{2.5}x}{\cancel{2.5}} \\ 1.4 &= x \text{ or } x = 1.4 \end{aligned}$$

$$\begin{aligned} 7 \quad (\cancel{3}) \frac{x}{\cancel{3}} &= 6.4 (3) \\ x &= 19.2 \end{aligned}$$

$$\begin{aligned} 8 \quad \frac{\cancel{0.2}x}{\cancel{0.2}} &= \frac{0.7}{0.2} \\ x &= 3.5 \end{aligned}$$

$$\begin{aligned} 9 \quad (\cancel{x}) 8 &= \frac{8.4}{\cancel{x}} (\cancel{x}) \\ \frac{8x}{\cancel{8}} &= \frac{8.4}{\cancel{8}} \\ x &= 1.05 \end{aligned}$$

$$\begin{aligned} 10 \quad \frac{2.25}{0.75} &= \frac{\cancel{0.75}x}{\cancel{0.75}} \\ 3 &= x \\ \text{or } x &= 3 \end{aligned}$$

Solving Basic Equations (with Negative Numbers)

SE2 4

Instructions: Use multiplication or division to solve each equation.

$$1 \quad \cancel{(5)} \frac{x}{5} = -6 \quad (5)$$

$$x = -30$$

$$2 \quad \frac{-3x}{-3} = \frac{-21}{-3}$$

$$x = 7$$

$$3 \quad \cancel{(x)} 3 = \frac{-12}{x} \quad (\times)$$

$$\frac{3x}{3} = \frac{-12}{3}$$

$$x = -4$$

$$4 \quad \cancel{(x)} \frac{-28}{x} = -4 \quad (x)$$

$$\frac{-28}{-4} = \frac{-4x}{-4}$$

$$7 = x \quad \text{or} \quad x = 7$$

$$5 \quad \cancel{(-7)} \frac{x}{-7} = 9 \quad (-7)$$

$$x = -63$$

$$6 \quad \frac{15x}{15} = \frac{-45}{15}$$

$$x = -3$$

$$7 \quad \cancel{(-8)} \frac{x}{-8} = -1 \quad (-8)$$

$$x = 8$$

$$8 \quad \frac{55}{-5} = \frac{-5x}{-5}$$

$$-11 = x$$

or $x = -11$

$$9 \quad \frac{-72}{-8} = \frac{-8x}{-8}$$

$$9 = x$$

or $x = 9$

$$10 \quad \cancel{(x)} 9 = \frac{-45}{x} \quad (\times)$$

$$\frac{9x}{9} = \frac{-45}{9}$$

$$x = -5$$