Proportions with Mixed Numbers, Fractions, or Decimals

(Tough Ones)

MrB4math.com

1)

$\frac{23}{3} \cdot \frac{1}{2} = \frac{23}{6}$

$\frac{5}{1} \cdot \frac{x}{5} = \frac{7\frac{2}{3}}{10} \cdot \frac{5}{2}$

$x = \frac{23}{6}$

2)

$\frac{22}{5} \cdot \frac{3}{7} = \frac{y}{4\frac{2}{5}} \cdot \frac{4\frac{2}{5}}{1}$

$\frac{66}{35} = y$

3) Round answer to the tenths place.

$6.8 \cdot \frac{2}{5.4} = \frac{x}{6.8} \cdot \frac{6.8}{1}$

$6.8 \times 2 = 13.6$

$54 \times 5 = 270$

$\frac{13.6}{5.4} = x$

$2.5 = x$

$5.4 \overline{)13.60} = 2.51$

-108

280

-270

100

4)

$\frac{9}{5} \div \frac{20}{3} = \frac{9}{5} \cdot \frac{3}{20} = \frac{27}{100}$

$\frac{r}{8} = \frac{1\frac{4}{5}}{6\frac{2}{3}}$

$\frac{8}{1} \cdot \frac{r}{8} = \frac{27}{100} \cdot \frac{28}{25}$

$r = \frac{54}{25}$

Proportions with Mixed Numbers, Fractions, or Decimals

(Tough Ones)

MrB4math.com

5)

$$\frac{10}{r} = \frac{7}{2\frac{4}{5}}$$

$7 \cdot \frac{5}{14_2}$

$2r$ LCD

$2r \cdot \frac{10}{r} = \frac{5}{2} \cdot 2r$

$\frac{20}{5} = \frac{5r}{5}$

$4 = r$

6)

$$\frac{4}{y} = \frac{5\frac{1}{4}}{\frac{6}{1}}$$

$7\frac{21}{4} \cdot \frac{1}{6_2} = \frac{7}{8}$

$8y$ LCD

$8y \cdot \frac{4}{y} = \frac{7}{8} \cdot 8y$

$\frac{32}{7} = \frac{7y}{7}$

$\frac{32}{7} = y$

7)

$$\frac{0.7}{3.5} = \frac{4.1}{x}$$

$3.5x$ LCD

$3.5x \cdot \frac{0.7}{3.5} = \frac{4.1}{x} \cdot 3.5x$

$\frac{.7x}{.7} = \frac{14.35}{.7}$

$x = 20.5$

$3.5 \times 4.1 = 35 + 1400 = 14.35$

$.7\overline{)14.35}$ 20.5, -14, 035

8)

$$\frac{\frac{2}{5}}{6} = \frac{10}{k}$$

$\frac{2}{1} \cdot \frac{6}{5} = \frac{12}{5}$

$5k$ LCD

$5k \cdot \frac{12}{5} = \frac{10}{k} \cdot 5k$

$\frac{12k}{12} = \frac{50}{12}$ (25, 6)

$k = \frac{25}{6}$