Proportions

1. Solve each proportion problem for x. Write each answer as a reduced fraction.

a) $\dfrac{x}{6} = \dfrac{3}{4}$

b) $\dfrac{5}{x} = \dfrac{12}{5}$

c) $\dfrac{x}{8} = \dfrac{2}{\frac{3}{4}}$

d) $\dfrac{3x}{5} = \dfrac{0.6}{4}$

e) $\dfrac{0.2x}{0.7} = \dfrac{0.04}{0.3}$ f) $\dfrac{5.4}{9} = \dfrac{6}{0.3x}$

Proportions: No Calculators!!

1. Solve each proportion problem for x.
   Write each answer as a reduced fraction.

a) $\dfrac{x}{6} = \dfrac{3}{4}$

$\dfrac{4x}{4} = \dfrac{18}{4}$

$\boxed{x = \dfrac{9}{2}}$

b) $\dfrac{5}{x} = \dfrac{12}{5}$

$\dfrac{25}{12} = \dfrac{12x}{12}$

$\boxed{\dfrac{25}{12} = x}$

c) $\dfrac{x}{8} = \dfrac{2}{\frac{3}{4}}$

$\dfrac{3}{4}x = 16$

$\dfrac{3}{4} \cdot \dfrac{x}{1} = \dfrac{16}{1}$

$\dfrac{3x}{4} = \dfrac{16}{1}$

$\dfrac{3x}{3} = \dfrac{64}{3}$

$\boxed{x = \dfrac{64}{3}}$

d) $\dfrac{3x}{5} = \dfrac{0.6}{4}$ LCD = 10

$\dfrac{3x}{5} = \dfrac{0.6(10)}{4(10)}$

$\dfrac{3x}{5} = \dfrac{6\frac{}{2}}{40\frac{}{2}}$

$\dfrac{3x}{5} = \dfrac{3}{20}$

$\dfrac{60x}{60} = \dfrac{15}{60}$

$x = \dfrac{15/15}{60/15}$

$\boxed{x = \dfrac{1}{4}}$

LCD=10   LCD=100   LCD=10   LCD=10

e) $\dfrac{1.2x}{0.7} = \dfrac{0.04}{0.3}$

f) $\dfrac{5.4}{9} = \dfrac{6}{0.3x}$

$\dfrac{10(1.2x)}{10(0.7)} = \dfrac{100(0.04)}{100(0.3)}$

$\dfrac{10(5.4)}{10(9)} = \dfrac{10(6)}{10(0.3)x}$

$\dfrac{12x}{7} = \dfrac{4/_2}{30/_2}$

$\dfrac{54/_9}{90/_9} = \dfrac{60/_3}{3/_3 x}$

$\dfrac{12x}{7} = \dfrac{2}{15}$

$\dfrac{6/_2}{10/_2} = \dfrac{20}{x}$

$15 \cdot 12$

$15(10+2)$

$150+30$

180

$\dfrac{180x}{180} = \dfrac{14}{180}$

$\dfrac{3}{5} = \dfrac{20}{x}$

$x = \dfrac{14/_2}{180/_2}$

$\dfrac{3x}{3} = \dfrac{100}{3}$

$\boxed{x = \dfrac{7}{90}}$

$\boxed{x = \dfrac{100}{3}}$