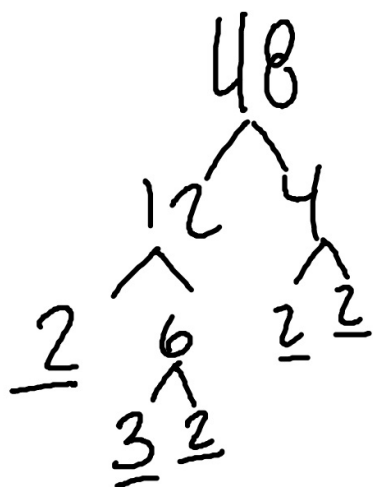
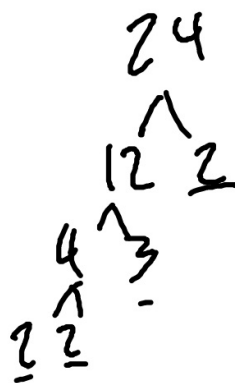


L24 Reducing Fractions



$$2 \cdot 2 \cdot 2 \cdot 2 \cdot 3$$

$$\frac{16}{24}$$



$$\frac{\cancel{2} \cdot \cancel{2} \cdot \cancel{2} \cdot \cancel{2}}{\cancel{2} \cdot \cancel{2} \cdot \cancel{2} \cdot 3}$$

$$\frac{420}{1050}$$

$$\begin{array}{r} 420 \\ \wedge \\ 42 \quad 10 \\ \wedge \quad \wedge \\ 6 \quad 7 \quad 2 \quad 5 \\ \wedge \quad \wedge \\ 2 \quad 3 \quad 1 \quad 1 \\ \hline 2 \cdot 2 \cdot 3 \cdot 5 \cdot 7 \\ \hline 2 \cdot 3 \cdot 5 \cdot 5 \cdot 7 \\ \hline 1 \quad 1 \quad 1 \quad 1 \end{array} = \frac{2}{5}$$

Cross Cancel

$$\frac{9}{16} \cdot \frac{2}{3} = \frac{\overset{3}{\cancel{9}} \cdot \overset{1}{\cancel{2}}}{\underset{8}{\cancel{16}} \cdot \underset{1}{\cancel{3}}} = \frac{3}{8}$$

$$\frac{\overset{3}{\cancel{9}} \cdot \overset{1}{\cancel{2}}}{\cancel{16} \cdot \cancel{3}} = \frac{3}{8}$$

$$\frac{\overset{1}{\cancel{3}} \cdot \overset{1}{\cancel{4}}}{\cancel{7} \cdot \cancel{7}} = \frac{4}{49}$$

$$\frac{\overset{1}{\cancel{4}} \cdot \overset{1}{\cancel{2}} \cdot \overset{1}{\cancel{5}}}{\cancel{9} \cdot \cancel{10} \cdot \cancel{4}} = \frac{1}{3}$$

$$\frac{27}{32} \cdot \frac{20}{63}$$

$$\begin{array}{c} 27 \\ \wedge \\ 3 \cdot 9 \\ \wedge \\ 3 \cdot 3 \end{array} \quad \begin{array}{c} 32 \\ \wedge \\ 8 \cdot 4 \\ \wedge \\ 2 \cdot 4 \cdot 2 \\ \wedge \\ 2 \cdot 2 \end{array}$$

$$\frac{3 \cdot 3 \cdot 3}{2 \cdot 2 \cdot 2 \cdot 2 \cdot 2} \cdot \frac{2 \cdot 2 \cdot 5}{3 \cdot 3 \cdot 7} = \frac{15}{56} \cdot \frac{20}{63}$$

$$\begin{array}{c} 20 \\ \wedge \\ 4 \cdot 5 \\ \wedge \\ 2 \cdot 2 \end{array} \quad \begin{array}{c} 63 \\ \wedge \\ 9 \cdot 7 \\ \wedge \\ 3 \cdot 3 \end{array}$$

GCF

$$\begin{array}{c} 12 \\ \hline 1 \times 12 \\ 2 \times 6 \\ 3 \times 4 \end{array}$$

$$\begin{array}{c} 32 \\ \hline 1 \times 32 \\ 2 \times 16 \\ 4 \times 8 \end{array}$$

$$\begin{array}{c} 12 \\ \wedge \\ 6 \cdot 2 \\ \wedge \\ 2 \cdot 3 \end{array} \quad \begin{array}{c} 32 \\ \wedge \\ 4 \cdot 8 \\ \wedge \\ 2 \cdot 2 \cdot 2 \cdot 2 \end{array}$$

$$\begin{array}{c} 2 \cdot 2 \cdot 3 \\ 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \\ \hline 2 \cdot 2 = 4 \end{array}$$



$$\begin{array}{r}
 \cancel{3} \cdot \cancel{3} \cdot \cancel{3} \cdot 3 \\
 \cancel{3} \cdot \cancel{3} \cdot \cancel{3} \\
 \hline
 3 \cdot 3 \cdot 3 = 27
 \end{array}$$

I. Use Prime factorization to reduce

$$\frac{48}{144}$$

II. GCF of 90 and 324

III. $\frac{5}{8} \cdot \frac{3}{10}$ cross cancel