

Review of Chapter R:

Friday, January 18, 2019

12:36 PM

Simplify $\frac{21}{105}$.

$$\frac{21}{105} = \frac{3 \cdot 7}{5 \cdot 21} = \frac{\cancel{3} \cdot 7}{5 \cdot \cancel{3} \cdot 7} = \frac{1}{5}$$

Add or subtract, as indicated. Simplify your answer.

$$2\frac{1}{12} - 1\frac{3}{20} = \frac{25}{12} - \frac{23}{20}$$

$$\text{LCM: } 12 = \cancel{2} \times 2 \times 3$$

$$20 = \cancel{2} \times 2 \times 5$$

$$\text{LCM is } 60$$

$$\begin{aligned} 2 + \frac{1}{12} &= \frac{24}{12} + \frac{1}{12} \\ &= \frac{25}{12} \end{aligned}$$

$$= \frac{25}{12} \left(\frac{5}{5} \right) - \frac{23}{20} \left(\frac{3}{3} \right)$$

$$= \frac{125}{60} - \frac{69}{60}$$

$$\begin{array}{r} 125 \\ -69 \\ \hline 56 \end{array}$$

$$= \frac{56}{60} = \frac{\cancel{2} \times 28}{\cancel{2} \times 30}$$

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

Multiply or divide, as indicated.

$$\frac{\overset{5}{\cancel{25}}}{\underset{3}{\cancel{6}}} \times \frac{\underset{3}{\cancel{2}}}{\overset{15}{\cancel{15}}} = \frac{5}{9} \quad \equiv \quad \frac{25}{6} \times \frac{2}{15} = \frac{\overset{5}{\cancel{5}} \times \overset{5}{\cancel{5}}}{\underset{2}{\cancel{2}} \times \underset{3}{\cancel{3}}} \times \frac{\underset{3}{\cancel{2}}}{\overset{3}{\cancel{3}} \times \overset{5}{\cancel{5}}} = \frac{5}{9}$$

$$\begin{aligned} \frac{3}{11} \div \frac{7}{33} &= \frac{3}{11} \times \frac{33}{7} \\ &= \frac{3}{\cancel{11}} \times \frac{3 \times \cancel{11}}{7} \\ &= \frac{9}{7} \end{aligned}$$

now, write as a mixed fraction $\frac{9}{7} = 1\frac{2}{7}$

Add, subtract, multiply, or divide, as indicated. Leave your answer in decimal form.

a) $23.5 - 17.89$

$$\begin{array}{r} \overset{1}{2} \overset{2}{3} \overset{4}{5} \\ 23.50 \\ - 17.89 \\ \hline 5.61 \end{array}$$

b) $75.2 \div 0.16 = \frac{75.2}{0.16} \left(\frac{100}{100} \right) = \frac{7520}{16}$

$$\begin{array}{r} 470. \\ 16 \overline{) 7520.} \\ \underline{64} \\ 1120 \\ \underline{1120} \\ 0 \end{array} \quad \begin{array}{r} 16 \\ 4 \\ 64 \end{array}$$

$$\begin{array}{r}
 16 \overline{) 7520} \\
 \underline{64} \\
 112 \\
 \underline{112} \\
 0
 \end{array}$$

$$\begin{array}{r}
 \frac{4}{64} \\
 16 \quad 16 \\
 \frac{6}{96} \quad \frac{7}{112}
 \end{array}$$

470

$$\frac{8000}{20} = 400$$

36% of all orders at Federico's pizza are for delivery.

a) write this percentage as a decimal

$$\frac{36}{100} = 0.36$$

b) write this percentage as a simplified fraction

$$36\% = \frac{36}{100} = \frac{\cancel{4} \times 9}{\cancel{4} \times 25} = \frac{9}{25}$$