

Mastery Quiz I Practice Quiz

Answers

$$\textcircled{1} \quad \frac{68}{108} \div 2 = \frac{34}{54} \div 2 = \frac{17}{27}$$

$$\textcircled{2} \quad \frac{3}{8} \times \frac{4}{4} = \frac{12}{32}$$

$$\textcircled{3} \quad \begin{array}{r} 2\frac{8}{9} \\ 9 \overline{) 26} \\ \underline{18} \\ 8 \end{array} \quad \textcircled{2\frac{8}{9}}$$

$$\textcircled{4} \quad 4\frac{5}{7} = \frac{33}{7} \quad \text{4} \cdot 7 + 5$$

$$\textcircled{5} \quad \frac{7}{10} + \frac{5}{10} = \frac{12}{10} = \frac{6}{5} = \textcircled{1\frac{1}{5}}$$

$$\textcircled{6} \quad \begin{array}{r} 6\frac{5}{14} \\ + 1\frac{4}{7} \\ + 1\frac{8}{14} \\ \hline 7\frac{13}{14} \end{array}$$

$$\textcircled{7} \quad \frac{4}{5} - \frac{1}{8} = \frac{32}{40} - \frac{5}{40} = \frac{27}{40}$$

$$\textcircled{8} \quad \begin{array}{r} 17\frac{5}{13} \rightarrow 17\frac{40}{104} \rightarrow 16\frac{144}{104} \\ - 2\frac{7}{8} \quad \quad 2\frac{91}{104} \rightarrow 2\frac{91}{104} \\ \hline 14\frac{53}{104} \end{array}$$

$$\textcircled{9} \quad \begin{array}{r} 2.7 \\ + 24.861 \\ \hline 27.561 \end{array} \quad \textcircled{27.561}$$

$$\textcircled{10} \quad \begin{array}{r} 6\ 15\ 9 \\ 7.8\ 10'0 \\ - 1.8\ 6\ 8 \\ \hline 5.7\ 3\ 2 \end{array} \quad \textcircled{5.732}$$

Mastery Quiz II

Practice Quiz

Answers

① forty-two and nine hundred fifty-four thousandths

② $\frac{330}{600} = \frac{33}{60} = \frac{11}{20} = .55$

③ $\frac{24}{34} = \frac{12}{17} \approx .706 = 70.6\%$

$$\begin{array}{r} .7058... \\ 17 \overline{) 12.0000} \\ \underline{119} \\ 100 \\ \underline{85} \\ 150 \\ \underline{136} \\ 14 \end{array}$$

$$\begin{array}{r} .55 \\ 20 \overline{) 11.00} \\ \underline{100} \\ 100 \\ \underline{100} \\ 0 \end{array}$$

⑦ $8.95 = 895\%$

⑧ $46\% = .46 = \frac{46}{100} = \frac{23}{50}$

⑨ $.04\% = .0004 = \frac{4}{10000} = \frac{1}{2500}$

→ 04

④ $\frac{3}{8} \rightarrow 8 \overline{) 3.000}$

$23\frac{3}{8} = 23.375$

$$\begin{array}{r} .375 \\ 8 \overline{) 3.000} \\ \underline{24} \\ 60 \\ \underline{56} \\ 40 \\ \underline{40} \\ 0 \end{array}$$

⑤ $5 \overline{) 1.0} \quad \frac{1}{5} = .2$

$4\frac{1}{5} = 4.2 = 420\%$

4.2 →

⑥ $4.75 = 4\frac{75}{100} = 4\frac{3}{4}$

Mastery Quiz III

Practice Quiz

Answers

$$\textcircled{1} \frac{3}{4} \text{ of } \frac{8}{9} = \frac{\overset{1}{\cancel{3}}}{4} \cdot \frac{\overset{2}{\cancel{8}}}{\underset{3}{9}} = \frac{2}{3} \text{ gallon.}$$

$$\textcircled{2} 3\frac{1}{4} \text{ of } 4\frac{3}{7} = (3\frac{1}{4})(4\frac{3}{7}) = \frac{13}{4} \cdot \frac{31}{7} = \frac{403}{28} = 14\frac{11}{28}$$

$$\begin{array}{r} 31 \\ \times 13 \\ \hline 93 \\ 310 \\ \hline 403 \end{array}$$

$$\begin{array}{r} 14\frac{11}{28} \\ 28 \overline{)403} \\ \underline{28} \\ 123 \\ \underline{112} \\ 11 \end{array}$$

$$\textcircled{3} \begin{array}{r} 3.589 \\ \times 15 \\ \hline 17945 \\ + 35890 \\ \hline 53835 \end{array} \quad 53.835 \approx \$53.84$$

$$\textcircled{4} \frac{3}{7} \div \frac{6}{11} = \frac{3}{7} \cdot \frac{11}{6} = \frac{11}{14}$$

$\textcircled{5}$ repeated subtraction [division]

$$6\frac{3}{7} \div \frac{5}{7} = \frac{45}{7} \div \frac{5}{7} = \frac{45}{\cancel{7}} \cdot \frac{7}{5} = \frac{45}{5} = 9 \text{ servings}$$

$\textcircled{6}$ Fair division [division]

cost per pound \rightarrow $\frac{\text{cost}}{\text{pounds}} = \frac{\$15.04}{6.4 \text{ lb}}$

$$\$2.35 \text{ per pound}$$

$$\begin{array}{r} 2.35 \\ 6.4 \overline{)15.040} \\ \underline{-128} \\ 224 \\ \underline{-192} \\ 320 \\ \underline{-320} \\ 0 \end{array}$$

Mastery Quiz IV

Practice Quiz

Answers

① 85% of 660 =
 $(.85)(660) = \boxed{561}$ students

② $9.24 = 13.2\%$ of

$9.24 = .132x$

$\frac{9.24}{.132} = \frac{.132x}{.132}$

$70 = x$

$\boxed{70}$

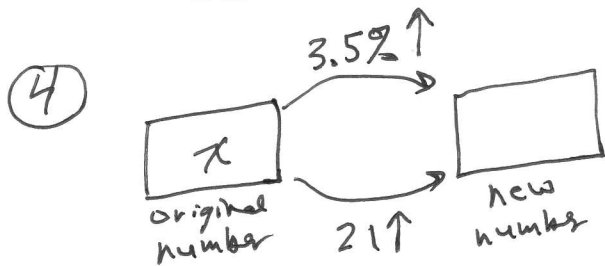
③ $182 = \underline{\hspace{1cm}}$ of 560

$182 = 560x$

$\frac{182}{560} = \frac{560x}{560}$

$x = .325 = \boxed{32.5\%}$

$\underbrace{\hspace{1cm}}_{.325}$

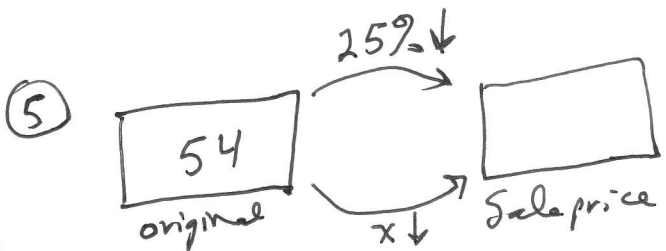


Percent change = $\frac{\text{amt of change}}{\text{original}}$

$.035 = \frac{21}{x}$

$.035x = 21$

$x = \frac{21}{.035} = \boxed{600}$ members



Percent change = $\frac{\text{amt of change}}{\text{original}}$

$.25 = \frac{x}{54}$

$(.25)(54) = x$

$x = 13.5$

sale price = $54 - 13.5 = \boxed{\$40.50}$