

8.9 Fractions with Money

Sydney buys a concert ticket from her friend for $\frac{3}{4}$ of the original cost shown on the ticket.

If the ticket costs \$37.50, how much does Sydney pay?

To determine how much Sydney pays, find $\frac{3}{4}$ of \$37.50.

****Remember that "of" means multiply!!****

$$\frac{3}{4} \times \$37.50 = \frac{3}{4} \cdot \frac{37.50}{1} = \frac{3 \cdot 37.50}{4 \cdot 1}$$

$$= \frac{112.50}{4} = 112.50 \div 4 = 28.125$$

$$= \boxed{\$28.13}$$

Handwritten work for $\frac{3}{4} \times 37.50$ shows a vertical multiplication of 37.50 by 3, resulting in 112.50. A red arrow points from the 112.50 to the next step.

Handwritten long division for $112.50 \div 4$ shows the quotient 28.125. The final result is rounded to 28.13 and boxed.

Example: Multiply or divide. Round to the nearest cent when necessary.

$$1.) \frac{1}{2} \text{ of } \$38 = \frac{1}{2} \cdot \frac{38}{1} = \frac{1 \cdot 19}{1 \cdot 1} = \frac{19}{1} = \boxed{\$19}$$

$$2.) \frac{1}{3} \text{ of } \$9.06 = \frac{1}{3} \cdot \frac{9.06}{1} = \frac{9.06}{3} = \boxed{\$3.02}$$

Handwritten long division for $9.06 \div 3$ shows the quotient 3.02.

Example: Multiply or divide. Round to the nearest cent when necessary.

3.) $\frac{2}{3}$ of \$17.50 = $\frac{2}{3} \cdot \frac{17.50}{1} = \frac{35}{3} = 11.666$

$$\begin{array}{r} 17.50 \\ \times 2 \\ \hline 35.00 \end{array}$$

$$\begin{array}{r} 11.666 \\ 3 \overline{) 35.000} \\ \underline{-30} \\ 50 \\ \underline{-48} \\ 20 \\ \underline{-18} \\ 20 \\ \underline{-18} \\ 2 \end{array}$$

$\boxed{11.67}$

4.) $\frac{5}{8}$ of \$18.50

$$\frac{5}{8} \cdot \frac{18.50}{1}$$

$$\begin{array}{r} 92.50 \\ \times 5 \\ \hline 462.50 \end{array}$$

= 11.562

= $\boxed{11.56}$

$$\begin{array}{r} 18.50 \\ \times 5 \\ \hline 92.50 \end{array}$$

$$\begin{array}{r} 11.562 \\ 8 \overline{) 92.500} \\ \underline{-80} \\ 125 \\ \underline{-120} \\ 50 \\ \underline{-48} \\ 20 \\ \underline{-16} \\ 4 \end{array}$$

Example: Multiply or divide. Round to the nearest cent when necessary.

5.) \$13.30 $\div 1\frac{2}{5}$

$$\frac{13.30}{1} \div \frac{7}{5}$$

$$\frac{13.30}{1} \cdot \frac{5}{7}$$

$$\frac{66.50}{7}$$

$\boxed{9.50}$

$$\begin{array}{r} 13.30 \\ \times 5 \\ \hline 66.50 \\ 7 \overline{) 66.50} \\ \underline{-63} \\ 35 \\ \underline{-35} \\ 00 \\ \underline{-00} \\ 0 \end{array}$$

6.) \$11.25 $\div 1\frac{1}{4}$

$$\frac{11.25}{1} \div \frac{5}{4}$$

$$\frac{11.25}{1} \cdot \frac{4}{5} = \frac{45}{5} = \boxed{9.00}$$

$$\begin{array}{r} 11.25 \\ \times 4 \\ \hline 45.00 \end{array}$$