

Add decimal numbers just as you add whole numbers. Just remember the decimal point.

$$\begin{array}{r}
 \text{decimal points} \\
 \downarrow 2 \\
 0.09 \\
 0.06 \\
 0.05 \\
 0.03 \\
 +0.10 \\
 \hline
 0.33 \\
 \uparrow \\
 \text{The decimal point stays put.}
 \end{array}$$

$$\begin{array}{r}
 | \quad | \\
 0.13 \\
 0.05 \\
 2.43 \\
 3.32 \\
 +0.13 \\
 \hline
 6.06 \\
 \uparrow \\
 \text{Stays put.}
 \end{array}$$

$$\begin{array}{r}
 0.34 \\
 +0.96 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 0.06 \\
 +0.32 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 0.391 \\
 +0.406 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 0.3720 \\
 +0.3116 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 1.09 \\
 6.72 \\
 18.46 \\
 0.03 \\
 + 0.65 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 7.12 \\
 0.06 \\
 1.21 \\
 0.35 \\
 +1.62 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 2.09 \\
 7.42 \\
 3.61 \\
 0.05 \\
 +0.50 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 4.13 \\
 6.65 \\
 9.87 \\
 0.12 \\
 +0.01 \\
 \hline
 \end{array}$$

$$\begin{array}{r} 31.006 \\ -4.795 \\ \hline \end{array}$$

$$\begin{array}{r} 75.302 \\ -0.691 \\ \hline \end{array}$$

$$\begin{array}{r} 37.1050 \\ -4.9632 \\ \hline \end{array}$$

$$\begin{array}{r} 37.603 \\ -6.541 \\ \hline \end{array}$$

$$\begin{array}{r} 986.31 \\ -136.98 \\ \hline \end{array}$$

$$\begin{array}{r} 0.0396 \\ -0.0142 \\ \hline \end{array}$$

$$\begin{array}{r} 0.23965 \\ -0.07653 \\ \hline \end{array}$$

$$\begin{array}{r} 167.8 \\ -32.9 \\ \hline \end{array}$$

$$\begin{array}{r} 46.005 \\ -13.097 \\ \hline \end{array}$$

$$\begin{array}{r} 27.006 \\ -14.932 \\ \hline \end{array}$$

$$\begin{array}{r} 0.06391 \\ -0.02939 \\ \hline \end{array}$$

$$\begin{array}{r} 4.765 \\ -3.986 \\ \hline \end{array}$$

$$\begin{array}{r} 37.186 \\ -9.246 \\ \hline \end{array}$$

$$\begin{array}{r} 0.567 \\ -0.138 \\ \hline \end{array}$$

$$\begin{array}{r} 31.245 \\ -1.057 \\ \hline \end{array}$$

$$\begin{array}{r} 35.279 \\ -1.579 \\ \hline \end{array}$$

$$\begin{array}{r} 406.89 \\ -23.81 \\ \hline \end{array}$$

$$\begin{array}{r} 2.001 \\ -0.462 \\ \hline \end{array}$$

To express a decimal number as a fraction, use the number as the numerator and 10, 100, or 1000 as the denominator.

$$0.5 \xleftarrow{\text{tens}} \xrightarrow{\text{One place to the right of the decimal point}} \frac{5}{10}$$

$$0.55 \xleftarrow{\text{hundredths}} \xrightarrow{\text{Two places to the right of the decimal point}} \frac{55}{100}$$

$$0.555 \xleftarrow{\text{thousandths}} \xrightarrow{\text{Three places to the right of the decimal point}} \frac{555}{1000}$$

More examples:

Remember to express the fraction in lowest terms.

$$0.2 = \frac{2}{10} = \frac{1}{5}$$

$$0.66 = \frac{66}{100} = \frac{33}{50}$$

Express each decimal number as a fraction.

$0.63 =$

$0.100 =$

$0.68 =$

$0.85 =$

$0.535 =$

$0.8 =$

$0.3 =$

$0.406 =$

$0.92 =$

$0.40 =$

$0.10 =$

$0.33 =$

$0.99 =$

$0.159 =$

To express a percent as a fraction, follow these steps.

$$16\% = ?$$

(a) Use the number as the numerator. $\frac{16}{?}$ ← numerator

(b) Use 100 as the denominator because percent means per hundred. $\frac{16}{100}$ ← denominator

(c) Express the fraction in lowest terms.

$$\frac{16}{100} = \frac{4}{25} \qquad 16\% = \frac{4}{25}$$

Express each percent as a fraction in lowest terms.

$5\% =$

$40\% =$

$20\% =$

$12\% =$

$65\% =$

$85\% =$

$99\% =$

$98\% =$

$7\% =$

$31\% =$

$35\% =$

$50\% =$

$33\% =$

$75\% =$