

Fractions and Decimals

Fractions can be converted to decimals. Some fractions such as $\frac{1}{2}$, $\frac{1}{4}$ or $\frac{1}{8}$ convert to decimals that do not repeat. For example, $\frac{1}{2} = 0.5$.

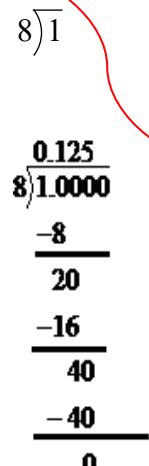
Other fractions, when converted, do not terminate but repeat. An example of a fraction that turns into a repeating decimal is $\frac{1}{3}$.

Steps to Convert a Fraction to a Decimal:

1. Write out original problem.
2. Divide the numerator by the denominator by going off to the right side of the problem and setting up a long division problem.
3. Make sure you always divide the numerator by the denominator regardless of the size of each number.
4. The numerator becomes the dividend and the denominator becomes the divisor.
5. Follow steps for dividing decimals.
6. Go back to the left and write the final answer by the fraction.

Example:

Convert $\frac{1}{8}$ to a decimal.

Steps	Information
$\frac{1}{8} = 0.125$ 	<p>Write out original problem and then set up a long division problem on the right side of the problem.</p> <p>Do the long division using steps to divide decimals.</p> <p>Write final answer by the fraction</p>