

Example 2

Convert the following fractions to decimal numbers.

a) $\frac{1}{2}$

$= 0.5$

$$\begin{array}{r} 0.5 \\ 2 \overline{) 1.0} \\ \underline{10} \\ 0 \end{array}$$

b) $\frac{7}{10}$

$= 0.7$

$$\begin{array}{r} 0.7 \\ 10 \overline{) 7.0} \\ \underline{70} \\ 0 \end{array}$$

c) $-\frac{13}{20}$

$= -0.65$

$$\begin{array}{r} -0.65 \\ 20 \overline{) -13.00} \\ \underline{120} \\ 100 \\ \underline{100} \\ 0 \end{array}$$

d) $-\frac{13}{200}$

$= -0.065$

$$\begin{array}{r} -0.065 \\ 200 \overline{) -13.000} \\ \underline{1200} \\ 1000 \\ \underline{1000} \\ 0 \end{array}$$

Rounding Decimal Numbers

When converting from fractions to decimals you will often get more than two decimal places in your answer. Rounding estimates your answer to make it shorter. To round a number, inspect the digit to the right of the place you want to round, if it is 5 or greater, increase the digit by one, if not leave the digit alone.

Example 3

Round the following to the indicated number of decimal digit places. Check your answers with your teacher.

	Rounding required	Answer
17.654	Nearest tenth (one decimal place)	17.7
38.125	Two decimal places	38.13
456.8999	Nearest tenth	456.9
0.333333	Nearest hundredth (2 decimal places)	0.33
14.56	Nearest whole number	15
15.89	Nearest tenth	15.9