

Dividing Decimals

To divide two decimals, use the following steps.

- If necessary, change the divisor to a whole number by moving the decimal point to the right. You are multiplying the divisor by a power of ten.
- Move the decimal point in the dividend the same number of places to the right. You are multiplying the dividend by the same power of ten.
- Divide as with whole numbers.

EXAMPLES

Divide Decimals

Divide.

1 $25.8 \div 2$ **Estimate** $26 \div 2 = 13$

$$\begin{array}{r} 12.9 \\ 2 \overline{)25.8} \\ \underline{-2} \end{array}$$

The divisor, 2, is already a whole number, so you do not need to move the decimal point.

$$\begin{array}{r} 5 \\ \underline{-4} \\ 18 \\ \underline{-18} \\ 0 \end{array}$$

Divide as with whole numbers. Then place the decimal point directly above the decimal point in the dividend.

Compared to the estimate, the quotient, 12.9, is reasonable.

1 $199.68 \div 9.6$ **Estimate** $200 \div 10 = 20$

$$\begin{array}{r} 20.8 \\ 9.6 \overline{)199.68} \\ \underline{-192} \end{array}$$

Move each decimal point one place to the right.

$$\begin{array}{r} 768 \\ \underline{-768} \\ 0 \end{array}$$

Compare the answer to the estimate.