

Divide Decimals by Decimals 2

A shortcut for dividing decimals by decimals

You have learned to multiply both the dividend and the divisor by a power of ten so that the divisor becomes a whole number.

The shortcut for this is to simply **move the decimal point** in both the dividend and the divisor enough decimal places so that the divisor becomes a whole number.

$$\begin{array}{c} \times 10 \\ \frac{5.6}{0.2} = \frac{56}{2} = 28 \\ \times 10 \end{array}$$

Move the decimal point in both the dividend and the divisor one step to the right.

$$\begin{array}{c} \times 1,000 \\ \frac{0.0932}{0.013} = \frac{93.2}{13} \approx 7.17 \\ \times 1,000 \end{array}$$

Move the decimal point in both the dividend and the divisor three steps to the right.

1. Write an equivalent division problem where the divisor is a whole number. Then solve with long division.

a. $\frac{57.2}{0.04}$

b. $\frac{23.88}{0.006}$

2. Solve the equations.

a. $0.5x = 7.35$

b. $0.07x = 32.144$