## Divide Decimals by Decimals 2

$$
\begin{array}{lc}
\text { How to } & \text { 1. First think how many times the divisor goes into the dividend. } \\
\text { If you cannot figure this out with mental math, go to step } 2 .
\end{array}
$$

Example 1. On the right, the division $0.644 \div 0.023$ gets transformed into $644 \div 23$. Each line is a division problem. At each step, the divisor and the dividend are multiplied by 10 -yet each problem has the same answer, 28.

The shortcut for multiplying by 10 is to move the
 decimal point. So, at each step, when the dividend and the divisor are multiplied by 10, the decimal point moves one step to the right. You could, of course, simplify this process by moving the decimal point in both numbers three steps in one go.

Example 2. $22.440 \div 0.007 \rightarrow 22440 \div 7$
Move the decimal point three steps. We need to add a zero.

We get a whole-number divisor. This problem can now be solved with long division.

1. Continue the patterns, multiplying the dividend and divisor in each step by 10 , so that the quotients (the answers) remain the same.

2. Transform the problems so that you get a whole-number divisor. Then, divide using long division.

| a. $44.7 \div 0.05$ | b. $7.588 \div 0.007$ |
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