

Steps:

1. Convert decimals into whole numbers
2. Note the case (1-3) and state which case you have
3. Complete the new division
4. Move the decimal point depending on the case

Case 1 - Equal

Answer remains unchanged

Case 2 - Left bigger than right

Answer goes to the left

Case 3 - Right bigger than left

Answer goes to the right

Example : $0.486 \div 0.6$

Step 1 : Convert the decimals into whole numbers

$$\begin{array}{l} 0.486 \rightarrow 486 \\ \quad \swarrow \downarrow \searrow \\ 0.6 \rightarrow 6 \\ \quad \swarrow \end{array}$$

Step 2: Note the total number of spaces the decimal point was moved forwards (above)

3 times for the left

1 time for the right

The left is 2 bigger than the right \rightarrow so we have **Case 2**

Step 3: Complete the new division

$$486 \div 6 \rightarrow \begin{array}{r} 081 \\ 6\overline{)486} = 81 \end{array}$$

Step 4: Move the decimal point depending on the case

The left is 2 bigger than the right, so we move the decimal point 2 places to the left!

$$0081.0 \rightarrow 0.81$$

Final answer : $0.486 \div 0.6 = 0.81$

