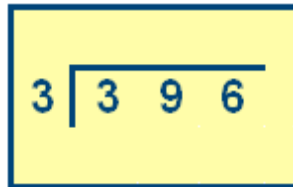


Short division

Large numbers are difficult to divide, because we don't learn the times tables for them.

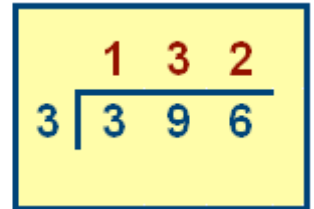
This is the traditional way of doing a division calculation. You may have tried this method at school.

$396 \div 3$ can be written like this:


$$\begin{array}{r} 3 \overline{) 396} \end{array}$$

To work this out, **divide 3 into 396 one digit at a time**, starting from the left with the digit 3 (which represents 300 in the number 396). Put the result of each division on top of the line.

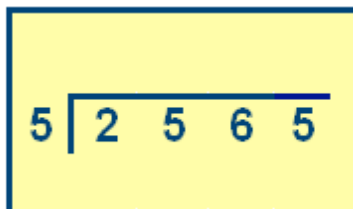
The 3 into 3 goes 1 time exactly,
3 into 9 goes 3 times,
3 into 6 goes 2 times exactly.
 $396 \div 3 = 132$


$$\begin{array}{r} 132 \\ 3 \overline{) 396} \end{array}$$

Check if this is correct by multiplying 3 by 132: $3 \times 132 = 396$

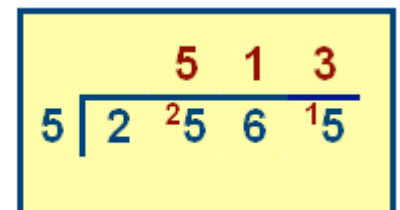
But what if the numbers don't divide exactly? This is where you **carry** numbers.

$2,565 \div 5$ can be written like this:


$$\begin{array}{r} 5 \overline{) 2565} \end{array}$$

To work this out, **divide 5 into 2,565 one digit at a time**, starting from the left with the digit 2 (which represents 2,000 in 2,565). Put the result of each division on top of the line.

The 5 into 2 won't go so you **carry** the 2 over to the next column, where you now have 25 in the hundreds column, 5 into 25 goes 5 times exactly, 5 into 6 goes once with 1 **remainder** which is carried over to the next column where you now have 15, 5 into 15 goes 3 times exactly.
 $2,565 \div 5 = 513$


$$\begin{array}{r} 513 \\ 5 \overline{) 2565} \\ 2 \\ 15 \end{array}$$

Check if your answer is correct by multiplying 5 by 513: $5 \times 513 = 2,565$