

## Long division

This is the traditional way of doing long division, which you may have been taught at school.

Have a look at the calculation:  $8,640 \div 15$

$$15 \overline{) 8640}$$

15 into 8 doesn't go, so look at the next digit.

$$\begin{array}{r} 5 \\ 15 \overline{) 8640} \\ - 75 \\ \hline 11 \end{array}$$

15 goes into 86 five times, so put a 5 above the 6.

$$15 \times 5 = 75$$

Take that 75 away from the 86 to get your remainder.

$$86 - 75 = 11$$

$$\begin{array}{r} 57 \\ 15 \overline{) 8640} \\ \underline{75} \phantom{0} \\ 114 \\ \underline{105} \\ 9 \end{array}$$

Next, carry the 4 down to make 114.

15 goes into 114 seven times, so put a 7 above the 4.

$$15 \times 7 = 105$$

Take 105 from the 114 to get your remainder

$$114 - 105 = 9$$

$$\begin{array}{r} 576 \\ 15 \overline{) 8640} \\ \underline{75} \phantom{0} \\ 114 \\ \underline{105} \\ 90 \\ \underline{90} \\ 0 \end{array}$$

Carry the 0 down to make 90

15 goes into 90 exactly 6 times, so put a 6 above the 0

$$15 \times 6 = 90$$

$$8,640 \div 15 = 576$$