



Multiplying decimal numbers

Tip: the Multiplication factsheets show different written multiplication methods. You may need to revise the method you use.

When a decimal fraction is involved in multiplication, you multiply as you would for whole numbers, then put in the **decimal place** once you've **finished**.

Remove any unnecessary zeros from the numbers and put the shorter number (the one with fewer digits) as the **multiplier**.

Example

162×3.9 Using the traditional method:

$$\begin{array}{r}
 162 \\
 3.9 \times \\
 \hline
 1458 \\
 4860 \\
 \hline
 6318
 \end{array}$$

Remember the zero

Count how many digits there were after the decimal points in your numbers: only one. This means that the answer must have one digit after the decimal point, so the answer is 631.8 Remember to **estimate and check**: 150×4 is 600 so the answer is the right size.

Example

Dervla worked for 21 hours at a rate of £6.45 per hour. She checked her payslip like this:

$$\begin{array}{r}
 6.45 \\
 21 \times \\
 \hline
 645 \\
 12900 \\
 \hline
 13545
 \end{array}$$

There were only 2 digits after the decimal point, so the answer will be **£135.45**.

Estimate and check: $6 \times 20 = 120$ so the answer is the right size.