



HELPING AT HOME MULTIPLICATION 3



Standard written method-Multiplying a three-digit number by a single digit.

Multiplication can be carried out in a variety of different ways.

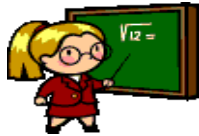
Example 1 Multiply 136 by 8

(a) Multiply the hundreds first

$$\begin{array}{r}
 136 \\
 \times 8 \\
 \hline
 8 \times 100 \quad 800 \\
 8 \times 30 \quad 240 \\
 8 \times 6 \quad 48 \\
 \hline
 1088
 \end{array}$$

(b) Multiply the units first

$$\begin{array}{r}
 136 \\
 \times 8 \\
 \hline
 8 \times 6 \quad 48 \\
 8 \times 30 \quad 240 \\
 8 \times 100 \quad 800 \\
 \hline
 1088
 \end{array}$$



There is also a 'shorter' way of recording'

Step 1

$$\begin{array}{r}
 136 \\
 \times 8 \\
 \hline
 8 \\
 4
 \end{array}$$

Bottom times top-(units x units)
 $8 \times 6 = 48$
 Write the 8 in the units column
 Carry 4 tens underneath

Step 2

$$\begin{array}{r}
 136 \\
 \times 8 \\
 \hline
 88 \\
 24
 \end{array}$$

Bottom times top-(units x tens)
 $8 \times 3 = 24$ add the 4 ($24 + 4 = 28$)
 Write the 8 in the tens column
 Carry 2 underneath

Step 3

$$\begin{array}{r}
 136 \\
 \times 8 \\
 \hline
 1088 \\
 24
 \end{array}$$

Bottom times Top-(units x hundreds)
 $8 \times 1 = 8$ add the 2 ($8 + 2 = 10$)
 Write the 10