

## LONG MULTIPLICATION

✓ Multiplying a two-digit number by a two-digit number.

When multiplying all pupils, parents and teachers are requested to use the following agreed wording.

$$78 \times 26 = ?$$

78 multiplied by 26 is the same as what?

$$\begin{array}{r} \text{t} \quad \text{u} \\ 78 \\ \times 26 \\ \hline \end{array}$$

Starting from the bottom, begin multiplication on the units side.

$$\begin{array}{r} \text{t} \quad \text{u} \\ 7 \quad 8 \\ \times 2_4 \quad 6 \\ \hline 8 \end{array}$$

Multiply the units by 6.  
6 groups of 8 units = 48  
Carry the 4 tens to the tens place. The carried number must be small.  
Put down the 8 units.

$$\begin{array}{r} \text{t} \quad \text{u} \\ 7 \quad 8 \\ \times 2_4 \quad 6 \\ \hline 468 \end{array}$$

Multiply the tens by 6.  
6 groups of 7 tens = 42 and add on the tens carried over.  
6 groups of 7 tens = 42 tens plus 4 tens = 46 tens

$$\begin{array}{r}
 \text{t} \quad \text{u} \\
 78 \\
 \times 26 \\
 \hline
 468 \\
 0
 \end{array}$$

Next multiply by 20.  
 $20 = 2 \times 10$  or two tens.  
 When you multiply by 10 it  
 adds a zero to the end of your  
 number.  
 Put down your '0'.

$$\begin{array}{r}
 \text{t} \quad \text{u} \\
 78 \\
 \times 26 \\
 \hline
 468 \\
 160
 \end{array}$$

Now multiply by the 2.  
 2 groups of 8 units = 16 units  
 $16 = 1 \text{ ten} + 6 \text{ units}$ .  
 Carry the 1 ten as shown.  
 The carried number must be  
 small.  
 Now put down the 6.

$$\begin{array}{r}
 \text{t} \quad \text{u} \\
 78 \\
 \times 26 \\
 \hline
 468 \\
 + 1560 \\
 \hline
 \end{array}$$

Multiply 2 tens x 7 tens  
 $= 14 \text{ tens}$ .  
 Add on the carried ten.  
 This makes 15 tens.  
 Write down 15 tens.

Now add  $468 + 1560$ .

**WARNING!**

Do not add your carried  
 numbers when adding.  
 You may find it helpful to  
 cross out the carried numbers  
 before adding.

$$\begin{array}{r}
 468 \\
 + 1560 \\
 \hline
 2028
 \end{array}$$