

## Long Multiplication

### LONG MULTIPLICATION

$$482 \times 26 = \begin{array}{r} 482 \\ \times 26 \\ \hline \end{array}$$

1) This is completed in 2 sections: first you multiply everything by 6 and then by 20.

The process is almost exactly the same as short multiplication.

So :

$$\begin{array}{r} 482 \\ \times 26 \\ \hline 2892 \end{array} \leftarrow \text{This line is } \times 6$$

2)

$$\begin{array}{r} 482 \\ \times 26 \\ \hline 2892 \end{array} \leftarrow \text{This line is } \times 20.$$

Put a 0 in the lowest value column.  
This has  $\times 10$ .

$$\begin{array}{r} 482 \\ \times 26 \\ \hline 2892 \\ 0 \end{array} \leftarrow \text{Now you can multiply by 2 using short method.}$$

$$\begin{array}{r} 482 \\ \times 26 \\ \hline 2892 \\ 9640 \end{array} \leftarrow \text{Add 0 - then } \times 2.$$

$$2 \times 2 = 4$$

$$2 \times 8 = 16$$

$$2 \times 4 = 8$$

$$8 + 1 = 9$$

(Don't forget to add the carried digit)

3) Finally, you add the two lines together for your total.

$$\begin{array}{r} 482 \\ \times 26 \\ \hline 2892 \\ + 9640 \\ \hline 12532 \end{array}$$

$$482 \times 26 = 12532$$

Try these:

- 1)  $637 \times 34$
- 2)  $472 \times 56$
- 3)  $715 \times 43$
- 4)  $876 \times 76$
- 5)  $362 \times 89$
- 6)  $361 \times 23$
- 7)  $462 \times 65$
- 8)  $865 \times 32$