

The grid method of multiplication (3)

(3 digit x 2 digit numbers)

Today your child's homework involves calculating/solving problems, using grid multiplication. This is a method of multiplication that allows children to see easily what is being multiplied together.

Example: If there are 234 felt pens in a school pack, how many pens would there be in 28 packs?

So we need 234×28

First partition both of the numbers (split into hundreds, tens and units/ones) and place them on the outside of the grid as shown below.

	200	30	4
20			
8			

These partitioned numbers are then multiplied together in turn using knowledge of simple multiplication facts and place value, e.g. to calculate 20×200 we use knowledge that $2 \times 2 = 4$ therefore $20 \times 2 = 40$, $20 \times 20 = 400$ and $200 \times 20 = 4000$.

	200	30	4
20	4000	600	80
8	1600	240	32

The numbers in the grid can now be added together. It is probably easiest to add the numbers horizontally first and then add these two totals together as shown below.

	200	30	4	
20	4000	600	80	4680
8	1600	240	32	
				$\begin{array}{r} 1872 \\ 6552 \\ \hline 6552 \\ 11 \end{array}$

This final number then needs to be used to answer the question:

There would be 6552 felt pens .