Maths 18-11-20

LO: I can use a grid method to partition multiplication questions.

A slight change of plan to the main home learning overview – after going through some column multiplication questions in class yesterday I realised that we needed to think a little more about what is happening when we multiply larger numbers.

Today I would like you to use the grid method to partition a 2 or 3-digit number, calculate each part and then recombine the answers.

Example:

For 4 x 17 =

First, we would partition the 2-digit number in to 10 and 7.

We would then arrange these partitioned numbers in the top row of a multiplication which is drawn like this:

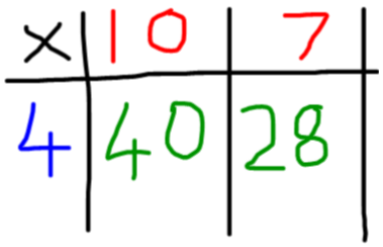
The numbers are then added:

You will notice that the multiplication grid layout looks like a place value chart.

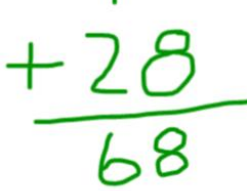
The number we are multiplying by is place in the left-hand column:

We then carry out multiplication of the 'ones' by the number in the left-hand column, so 4 x 7 = 28

We then complete the calculation by multiplying the 'tens' by the number in the left-hand column, so 4 x 10 = 40



The two answers we created (40 and 28) and then 're-combined' or added to give us the answer to the calculation:



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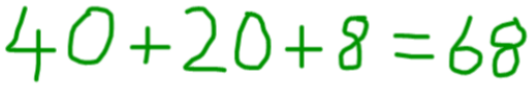

Use this method to have a go at these calculations:

1. 3 x 11 =
2. 6 x 12 =
3. 3 x 17 =
4. 8 x 15 =
5. 5 x 18 =

Try and use the technique for these if you would like to challenge yourself:

1. 4 x 121 =
2. 5 x 112 =
3. 3 x 154 =