

Work through the slides and write all of your answers onto a piece of paper/in a notebook. Don't worry about printing off the slides (unless you are able to and it makes it easier for you).

The answers are provided so that you can self-assess.

Send any work to:  
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5.11.20

WALT: multiplying using a formal written method.

Steps to success:

Multiply each number starting from the ones column.

Add any numbers carried.

Form digits correctly to avoid any silly errors.

(0 should not look like a 6. 7 should not look like a 2 etc.)

Ensure your answer is clear.

Explain how you would do this and write it down.  
Then, write down the answers without writing  
down any working out.

$40 \times 5 = \square$

$3 \times 90 = \square$

$800 \times 4 = \square$

$7 \times 300 = \square$

$20 \times 400 = \square$

$800 \times 30 = \square$

You must multiply the number you have without the 0s and then bank the 0s on the end. The amount of 0s you bank depends on how many 0s are in the whole equation.

Example:  $40 \times 600$

$$4 \times 6 = 24$$

There are three 0s in  $40 \times 600$  so you bank these onto the end of 24 ( $24000$ ).

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**Answers:**

$$40 \times 5 = 200$$

$$7 \times 300 = 2100$$

$$3 \times 90 = 270$$

$$20 \times 400 = 8000$$

$$800 \times 4 = 3200$$

$$800 \times 30 = 24,000$$

Work these out mentally and write your answers down. You shouldn't write down working out.

$70 \times 5 =$

$3 \times 80 =$

$40 \times 70 =$

$80 \times 60 =$

$400 \times 5 =$

$6 \times 900 =$

$70 \times 400 =$

$800 \times 70 =$

$400 \times 600 =$

## Answers:

$$70 \times 5 = 350$$

$$3 \times 80 = 240$$

$$40 \times 70 = 2800$$

$$80 \times 60 = 4800$$

$$400 \times 5 = 2000$$

$$6 \times 900 = 5400$$

$$70 \times 400 = 28,000$$

$$800 \times 70 = 56,000$$

$$400 \times 600 = 240,000$$

Using the formal written method:

1) Lay it out the same as you would with adding and subtracting (put the smaller number on the bottom right).

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Multiply  $4 \times 6 = 24$  (carry the 2 underneath the next number).

Multiply  $3 \times 6$  and add the 2 we carried.  $3 \times 6 = 18$

$18 + 2 = 20$ . (Place the 0 and carry the 2).

Multiply  $2 \times 6$  and add the 2 we carried.

$2 \times 6 = 12$   $12 + 2 = 14$ . You don't need to

carry the 1 as there is nothing else

to multiply.

$$\begin{array}{r}
 \phantom{2} \phantom{3} \phantom{4} \\
 \phantom{2} \phantom{3} \phantom{4} \\
 \phantom{2} \phantom{3} \phantom{4} \\
 \times \phantom{0} \phantom{0} \phantom{0} \phantom{0} \\
 \hline
 24 \\
 180 \\
 \hline
 220
 \end{array}$$

Now try these:

$$\begin{array}{r} 524 \\ \times \quad 4 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 8953 \\ \times \quad 6 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 3456 \\ \times \quad 7 \\ \hline \\ \hline \end{array}$$



$$\begin{array}{r} 524 \\ \times 4 \\ \hline \\ \hline \end{array} = 2096$$

$$\begin{array}{r} 8953 \\ \times 6 \\ \hline \\ \hline \end{array} = 53,718$$

$$\begin{array}{r} 3456 \\ \times 7 \\ \hline \\ \hline \end{array} = 24,192$$

Work out the missing numbers:

$$\begin{array}{r} \square 8 \square \\ \times 9 \\ \hline 7047 \end{array}$$

$$\begin{array}{r} 5 \square 3 \\ \times \square \\ \hline 3438 \end{array}$$

## Answers:

$$\begin{array}{r} \boxed{7}8\boxed{3} \\ \times 9 \\ \hline 7047 \end{array}$$

$$\begin{array}{r} 5\boxed{7}3 \\ \times \boxed{6} \\ \hline 3438 \end{array}$$

Hannah says that if you multiply a 2-digit number by a 1-digit number, the answer will have 2 digits.

Is this always, sometimes or never correct?

Prove it to me!

6.11.20

WALT: multiplying using a formal written method - 3 digit by 2 digit.

Steps to success:

Multiply each number starting from the ones column.

Add any numbers carried.

Lay an egg (0) when multiplying your 10s.

Form digits correctly to avoid any silly errors.

(0 should not look like a 6. 7 should not look like a 2 etc.)

Ensure your answer is clear.

Today you will be focusing on multiplying 3 digit by 2 digit. You need to focus as there are extra steps you must take to get the correct answer.

Using the formal written method:

1) Lay it out the same as you would when multiplying by a 1 digit number and complete the multiplication of your  $6 \times 4$ ,  $6 \times 3$  and  $6 \times 2$  as normal. Forget about the 2 in 26 for now.

$$\begin{array}{r} \phantom{\times} \phantom{2} \phantom{3} \phantom{4} \\ \phantom{\times} \phantom{2} \phantom{3} \phantom{4} \\ \times \phantom{2} \phantom{3} \phantom{4} \\ \hline 14 \phantom{0} \phantom{4} \\ \phantom{1} 2 \phantom{0} \phantom{4} \\ \hline \phantom{1} \phantom{2} \phantom{0} \phantom{4} \\ \hline \phantom{1} \phantom{2} \phantom{0} \phantom{4} \end{array}$$

2) Now we need to multiply the 2 (20) in your 26. Go to the next page for this step.

Using the formal written method:

1) Before you start multiplying, you need to place a 0 (lay an egg) because you are working with the 10s column.

$$\begin{array}{r} \phantom{\times} \phantom{0} 2 \phantom{0} 3 \phantom{0} 4 \\ \times \phantom{0} \phantom{0} 2 \phantom{0} 6 \\ \hline 14 \phantom{0} 0 \phantom{0} 4 \\ \hline 4 \phantom{0} 6 \phantom{0} 8 \phantom{0} 0 \end{array}$$

2) Then multiply your 2 as normal - carry when needed. ( $2 \times 4$ ,  $2 \times 3$ ,  $2 \times 2$ ).

3) You now have two answers. The answer to  $6 \times 234$  and the answer to 20. You need to now add these together.

$$4) 1404 + 4680 = 6084$$



Try these:

$$\begin{array}{r} 345 \\ \times \quad 23 \\ \hline \\ \hline \\ \hline \\ + \\ \hline \end{array}$$

$$\begin{array}{r} 695 \\ \times \quad 59 \\ \hline \\ \hline \\ \hline \\ + \\ \hline \end{array}$$

(See next page for answers).

$$\begin{array}{r}
 345 \\
 \times 23 \\
 \hline
 1035 \\
 \hline
 690 \\
 \hline
 \end{array}$$

1 1

1

Don't forget to add:

$$1035 + 690 = 1725$$

$$\begin{array}{r}
 695 \\
 \times 59 \\
 \hline
 \\
 \hline
 \\
 \hline
 \end{array}$$

$$= 41,005$$

$$\begin{array}{r} 1028 \\ \times \quad 26 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 2695 \\ \times \quad 59 \\ \hline \\ \hline \end{array}$$

(See next page for answers).

$$\begin{array}{r} 1028 \\ \times \quad 26 \\ \hline \hline \end{array} = 26,728$$

$$\begin{array}{r} 2695 \\ \times \quad 59 \\ \hline \hline \end{array} = 159,005$$

**Andrew**

$$21 \times 4,143$$

**Belinda**

$$2,123 \times 24$$

**Charles**

$$12 \times 7,133$$

Which pupil has the smallest answer?

*Ensure you work out the answers to all calculations using the formal written method. Don't forget to lay that egg!*

Andrew =

Belinda =

Charles =

Andrew:  $21 \times 4143 = 87,003$

Belinda:  $2123 \times 24 = 50,952$

Charles:  $12 \times 7133 = 85,596$

**Answer: Belinda**

**5. A bakery sells boxes of cupcakes. There are 16 cupcakes in a box.**

**Last year, the bakery sold 1,521 boxes. How many cupcakes did they sell?**



Answer:  $1521 \times 16 = 24,336$



5b. Julie has worked out the answer to  $3,618 \times 13$  below.

		3	6	1	8
x				1	3
		9	8	5	4
	3	6	1	8	0
	4	5	0	3	4

<sup>1</sup> <sup>1</sup> <sup>1</sup>

Is Julie correct?

Explain your answer.



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Work out the answer for yourself and explain what she has done wrong (if anything).

(See next page for answer).

Answer: She is incorrect. Julie has not added the thousand carried over from the  $3 \times 6$  hundreds.

Your homework this weekend will be set on Mymaths. It is a multiplication activity.

Please complete **by 9.11.20**. When you have completed it, click Mark it and save before you close it down.





