

Multiplication!

Task One:

Write down your 2s, 5s and 10 times tables.

Task Two:

Write down your 3s, 4s and 8s times tables.

Challenge:

Can you write the inverse division facts?



Grid Method!

×	20	4	
2	40	8	48

×	20	4	
3	60	12	72



Steps to success:

1. $20 \times 2 = 40$
2. $4 \times 2 = 8$
3. Add the two answers together... $40 + 8 = 48!$



Now draw the tables yourselves and have a go!

\times	50	5
3		



\times	20	9
4		



Your Turn!

Task 3 😊

Fluency:

2 $17 \times 3 = \square$

3 $26 \times 5 = \square$

4 $19 \times 4 = \square$

5 $3 \times 26 = \square$

6 $32 \times 4 = \square$

Reasoning:

Joe has a box of 22 chocolates.



He buys another 5 boxes of the chocolates to give to his friends. This means he has 6 boxes altogether?

How many chocolates are in all of the boxes?

Challenge

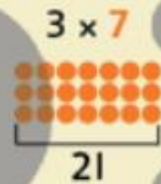
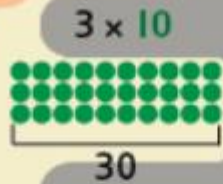


This grid is partly done and the answer is worked out. There are two ways of making it work. Can you find both of them?

	x		5
			= 175

GRAB! Place-value cards

$3 \times 17 = 51$



$= 30 + 21 = 51$

x	10	7	
3	30	21	= 51

1 $5 \times 23 = \square$

x	20	3	
5			= \square

2 $32 \times 4 = \square$

x	30	2	
4			= \square

3 $27 \times 3 = \square$

6 $3 \times 29 = \square$

4 $5 \times 24 = \square$

7 $5 \times 27 = \square$

5 $26 \times 4 = \square$

8 $28 \times 4 = \square$

THINK

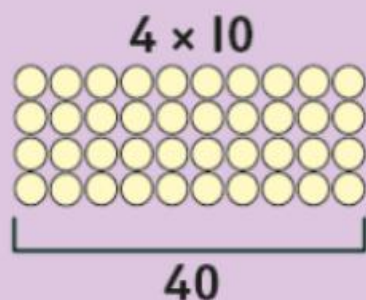
If the answer to $\square \times \square \square$ is an odd number, what do we know about the numbers in each of the boxes? Can we say for definite that any of the box digits are odd or even?



obacus Mastery Checkpoint

Have you mastered using the grid method?

$$4 \times 13$$



$$4 \times 3$$



x	10	3
4		

- a) Use the grid method to work out these multiplications.

$$4 \times 13 \quad 3 \times 15 \quad 5 \times 18 \quad 6 \times 14$$

$$3 \times 24 \quad 23 \times 4 \quad 8 \times 21 \quad 22 \times 5$$

- b) $4 \times 12 = 48$. Write two different multiplications which have double this answer.



Champions' Challenge

Write the 24 times-table up to 10×24 !

Hint: You do not need to use the grid method for every multiplication. Think how you can use some of the smaller answers to help you work out the larger ones.

Formal Method for Multiplication

Multiplying a 2- digit number by a 1- digit number.

$$24 \times 4 = ?$$

T O

$$\begin{array}{r} 24 \\ \times 4 \\ \hline 96 \end{array}$$

Step One: Line up your numbers carefully in columns so that the value of the digits are in the correct place (just like for column method and addition).

Step Two: Multiply the numbers in the ones column together ($4 \times 4 = 16$). Put the 6 under the ones column and the extra ten in the tens column to add onto the tens later.

Step Three: Now, multiply the number in the tens column by the number in the ones ($2 \times 4 = 8$, but don't forget to add the extra ten, so that makes 9).



THE ANSWER IS 96!

Task 4 😊

Multiply 2-digits by 1-digit (1)

White
Rose
Maths

- 1 Ron, Eva and Mo each have 23 marbles.

Tens	Ones
	
	
	

How many marbles are there in total?

$$3 \times 3 \text{ ones} = \square$$

$$3 \times 2 \text{ tens} = \square$$


$$\square + \square = \square$$

$$3 \times 23 = \square$$

There are \square marbles in total.



- 2 Use the place value chart to work out 2×24
Complete the multiplication sentences.



Tens	Ones
	
	

$$2 \times 4 = \square$$

$$2 \times 20 = \square$$

$$2 \times 24 = \square$$

- 3 Annie works out $43 \times 2 = 86$

Tens	Ones
	
	

	T	O	
	4	3	
x		2	
	8	6	

Talk about Annie's methods with a partner.

What is the same? What is different?

- 4 Complete the multiplications.

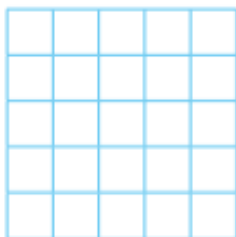
a)

	T	O	
	2	4	
x		2	

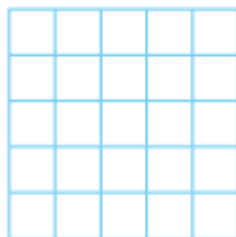
b)

	T	O	
	4	4	
x		2	

c) 31×3



d) 42×2



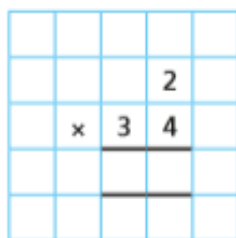
Compare answers with a partner.



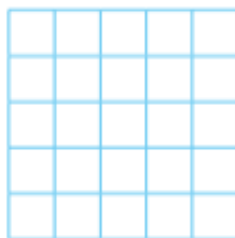
- 5 Jack is trying to work out 34×2 using the column method.



I'm not sure what to do.



Show how Jack could improve his column method and work out the answer.



- 6 One toaster costs £32
How much do 3 toasters cost?



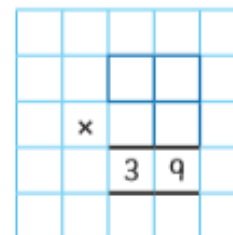
- 7 Whitney has multiplied a 2-digit number by a 1-digit number.



I had to do $30 + 9 = 39$ to get my answer.

What numbers is Whitney multiplying?

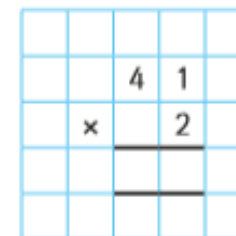
Fill in the missing digits.



- 8 Filip used the column method to work out 41×2



I can work this multiplication out in my head.



- a) How do you think Eva will work this out in her head?
b) Tick the multiplications that you can work out in your head.

4×22

3×23

3×33

12×4

3×32

4×20



Task 5

More Multiplication Problems!

True or false?

$$6 \times 9 \times 2 = 99$$



Answer!

True or false?

$$6 \times 9 \times 2 = 99$$

False; $6 \times 9 \times 2 = 108$

BEAST MODE CHALLENGE!

Add the missing digits to the calculations below.

$$9 \times \square \times 7 = 63$$

$$\square \times 2 \times 6 = 48$$

$$8 \times 4 \times \square = 96$$

BEAST MODE CHALLENGE 2!

Using the numbers 2 to 9, complete the number sentence below.

$$\square \times \square \times \square = 42$$

You may use each number more than once.

Find 5 possibilities.

