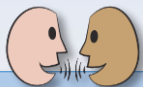


# Multiplying a pair of 2-digit numbers using grid multiplication.



Let's discuss how we could calculate this...

$$12 \times 34$$

$\times$	34
10	340
2	68
	408

We could find 10 lots of 34 and 2 lots of 34; then add the two products.



How could we calculate this?

$$23 \times 34$$

We can find 20 lots of 34 and 3 lots of 34 and add the two products. This time it would also be helpful to partition the 34...

## Multiplying a pair of 2-digit numbers using grid multiplication.

x	30	4	
20	600	80	680
3	90	12	102
			<b>782</b>

On the first row we are finding 20 lots of 34 by finding 20 lots of 30 and 20 lots of 4 and adding the two together.

What are we calculating on the second row?



Then we add the answers to 20 lots of 34 and 3 lots of 34 to find 23 lots of 34.

# Multiplying a pair of 2-digit numbers using grid multiplication.



How could we calculate this?

$$57 \times 24$$

We usually put the larger number on the top row of the grid.



Copy this grid, then try to complete it.

$\times$	50	7	
20	1000	140	1140
4	200	28	228
			1368

What have you calculated on the first row?



And the second row?



What did you do next?



Does the answer seem about right?



We can round 57 to 60 and 24 to either 20 or 25 to find an estimate.