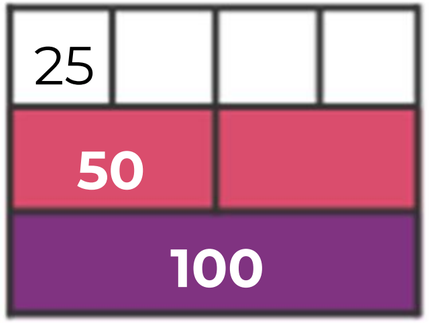
Long multiplication and area models Worksheet

Mr Ward

Warm up - Doubling and halving

Use adapted bar model to help solve the following calculations.

25 double → 50 double → 100



Therefore

$25 \times 4 = 100$

$25 \times 16 =$

$25 \times 24 =$

$25 \times 80 =$

$1000 \div 25 =$

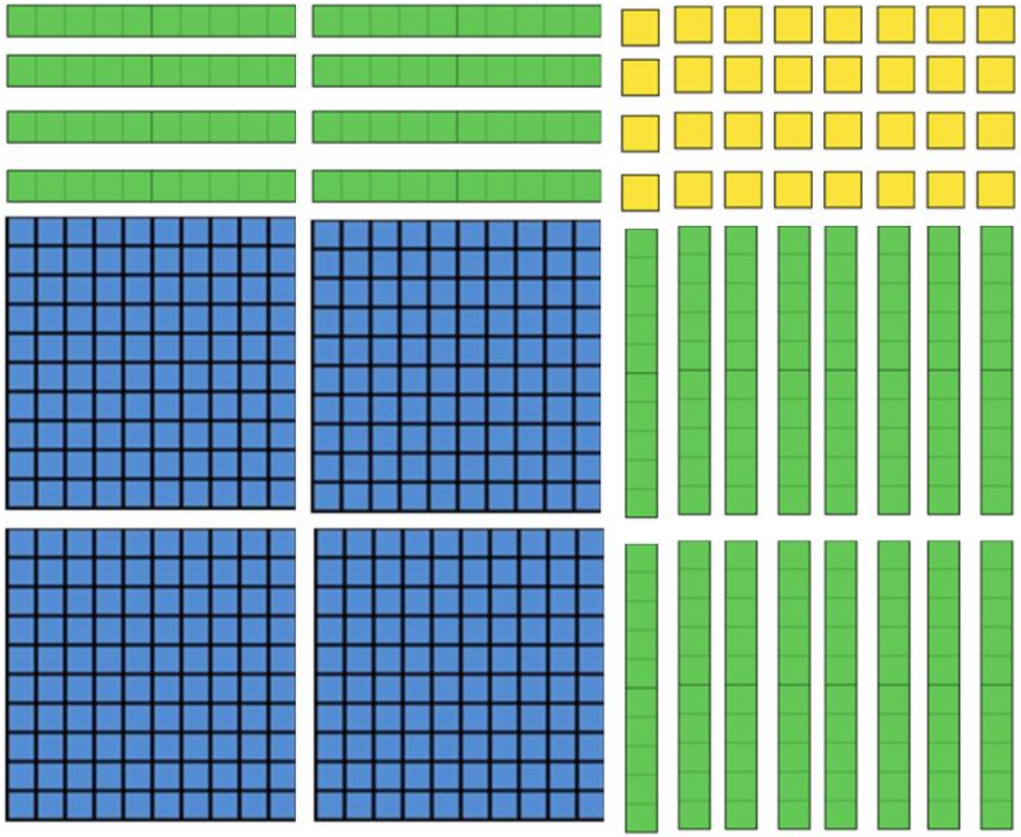
$625 \div 25 =$

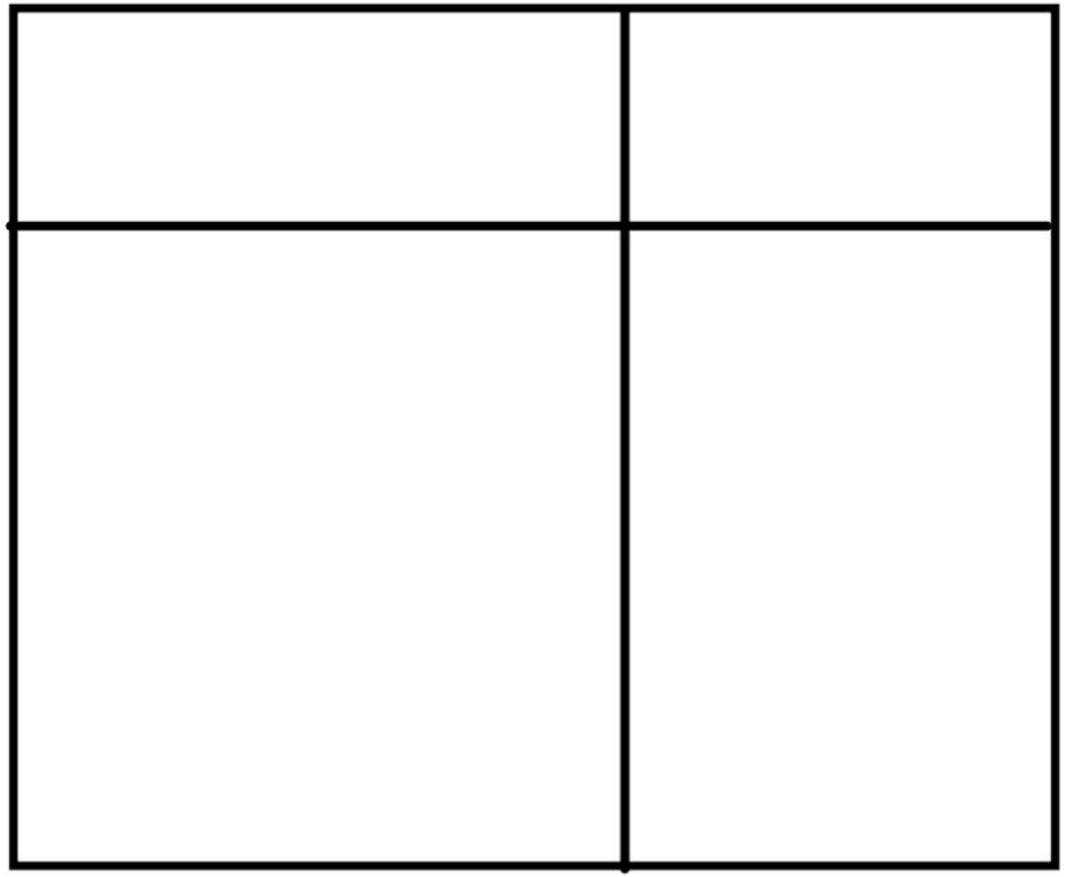
$350 \div 25 =$

Area Model - Your turn!

Work out the calculation

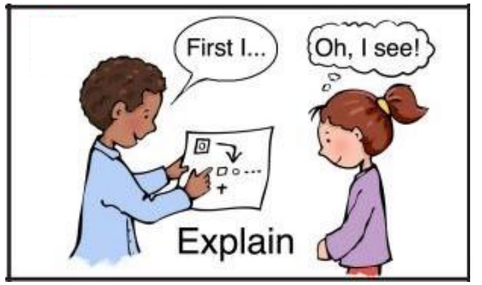
Complete the area model

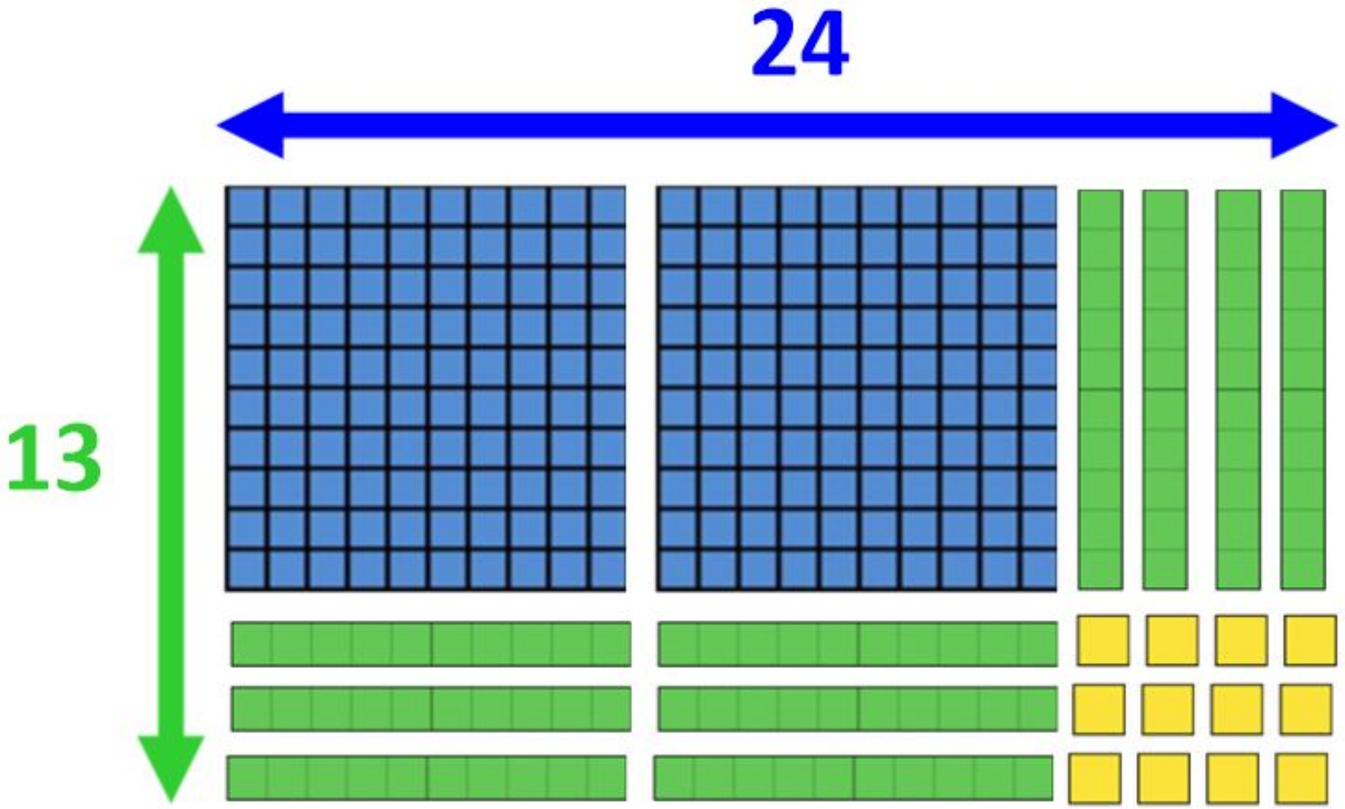




Talk Task - Sketching area models

1. Sketch the dienes to make an area model
2. Complete the area model
3. Work out the product for the calculation





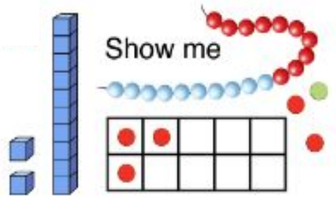
26 by 23

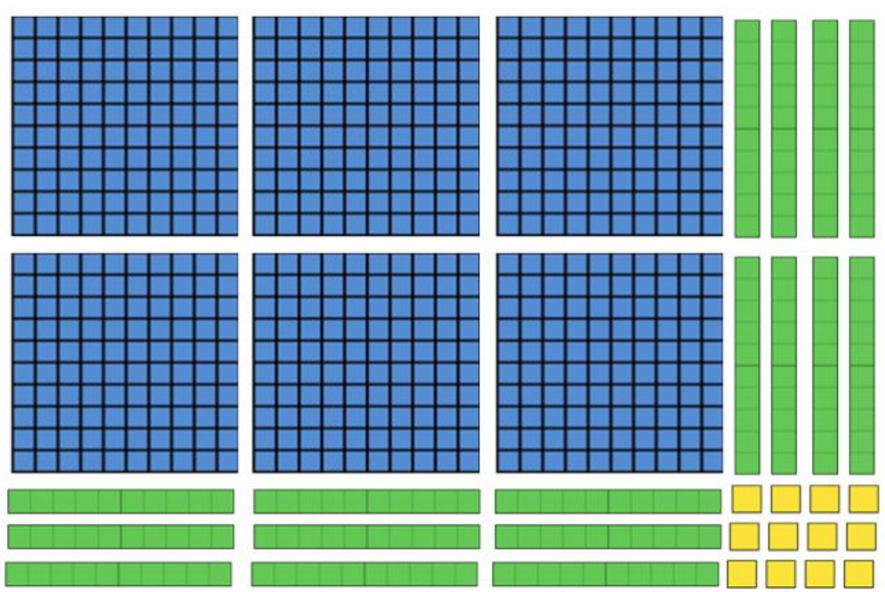
32 by 17

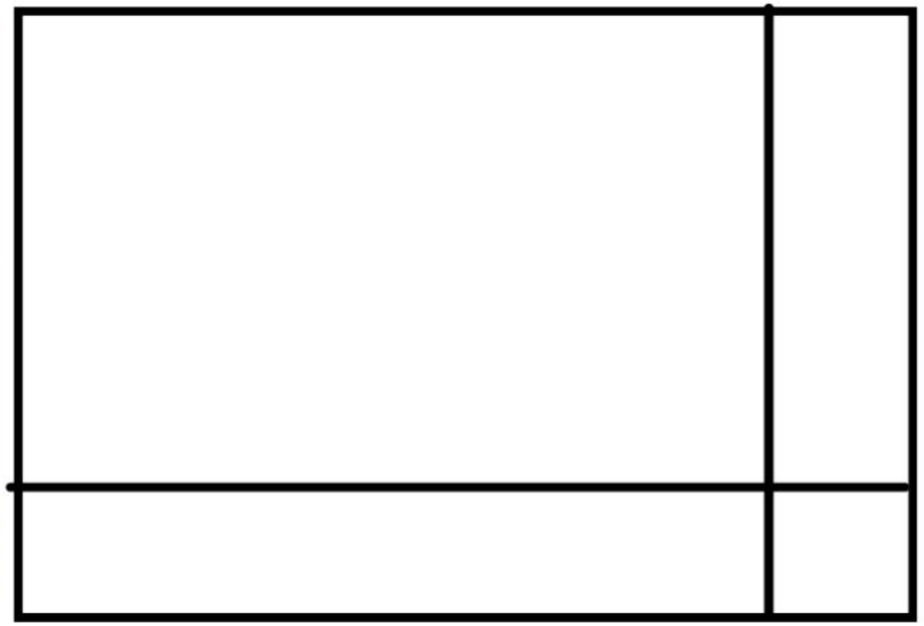
25 by 14

Formal Long multiplication

Concrete and pictorial representations



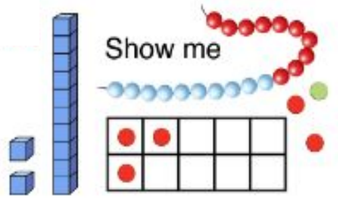


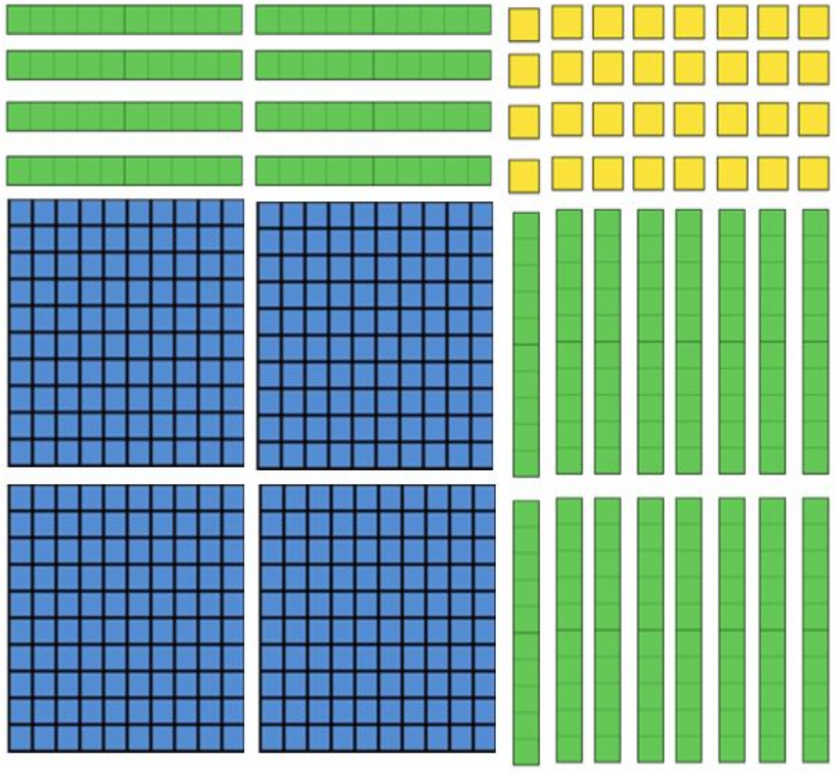


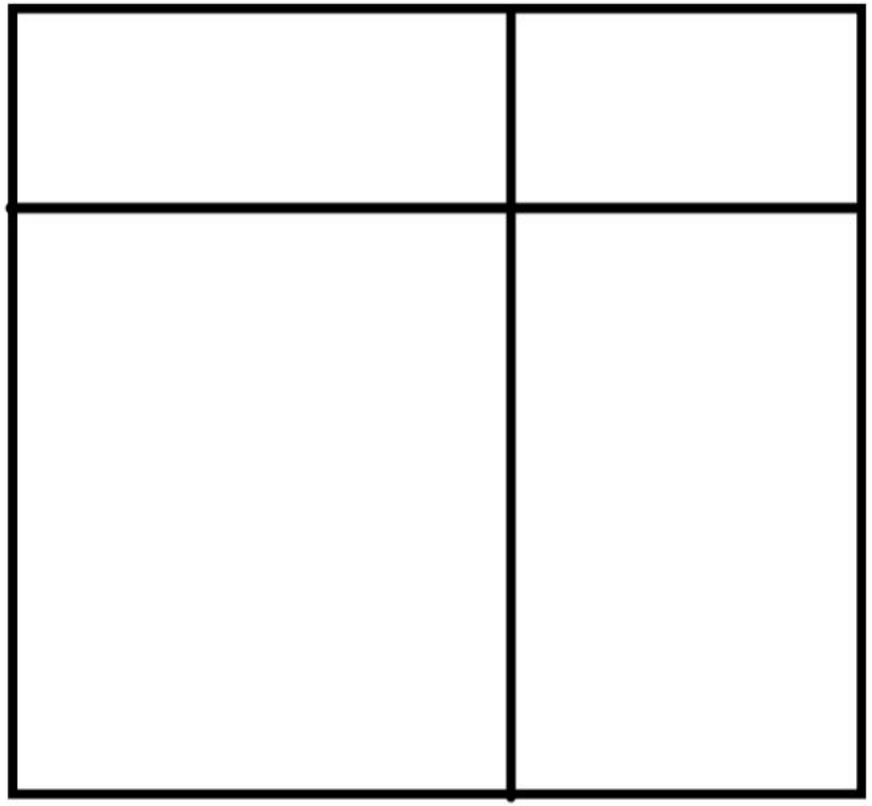
			3	4
		×	2	3

Formal Long multiplication

Concrete and pictorial representations







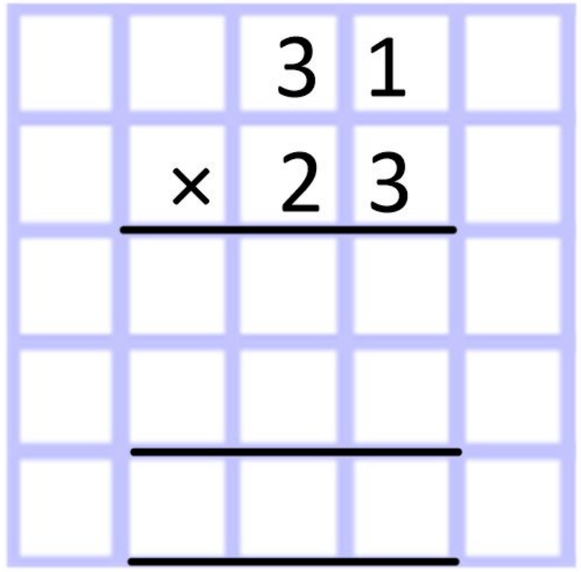
		2	8	
	×	2	4	

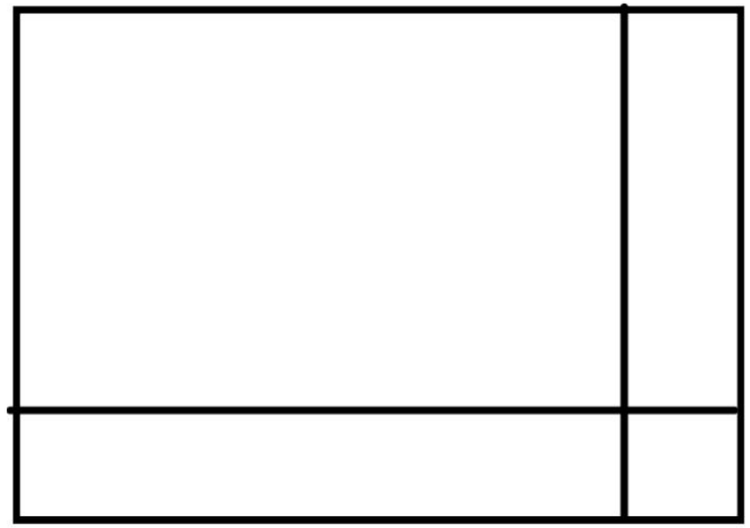
Use Long multiplication to solve these equations

Remember your derived facts and multiplying by multiples of 10

Sketching an area model is optional but recommended to help

1) 31 × 23
2) 43 × 29
3) 72 × 61
4) 64 × 25
5) 87 × 59





Challenge Slide
Multiplication Master

1. Create a maths story for each calculation
2. Can you think of three different ways to solve the equations?

- 64 x 25
- 33 x 14
- 46 x 21

Formal?

Informal?

Mental strategies?

How would you estimate first?