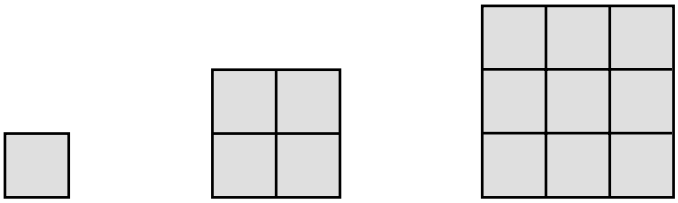
1 The first three square numbers are 1, 4 and 9



1 **4** **9**

What is the **fifth** square number?

. . . . . .

1 mark
Number
level 4

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2 Fill in the missing numbers in the boxes.

non calc paper

$(\square \times 4) \div 3 = 8$

. . . . . .

1 mark
Number
level 4

$5 \times (4 \div 2) = \square$

. . . . . .

1 mark
Number
level 5

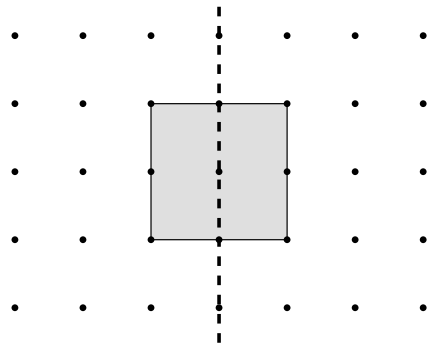
$6^2 \div \square = 9$

. . . . . .

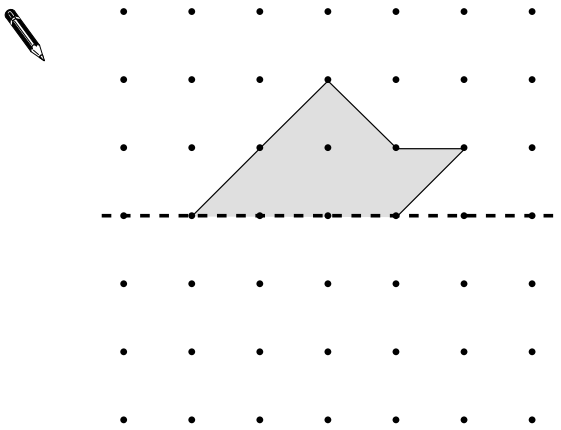
1 mark
Number
level 5

3 **Reflect** each shape below in the dashed mirror line.
Then write the mathematical **name** of the complete shape.

The first one is done for you.

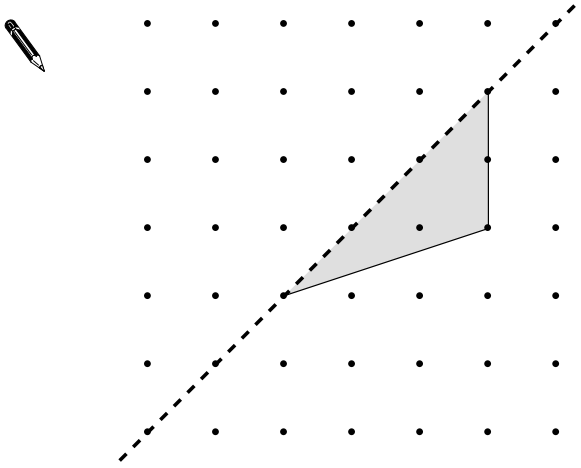


square



1 mark
Shape
level 4

1 mark
Shape
level 4

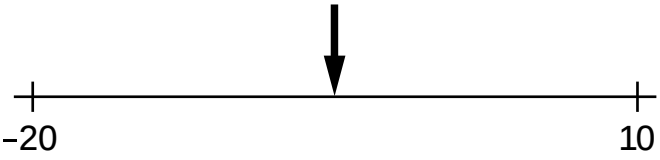


1 mark
Shape
level 4

1 mark
Shape
level 4

4 Look at the number line below.

Estimate what number the arrow is indicating.



. . . . . .

1 mark
Number
level 5

5 Complete the sentences to show how to change units.

The first one is done for you.

To change **metres** to **centimetres** *multiply by 100*

To change **millimetres** to **centimetres** . . . . . .

1 mark
Shape
level 5

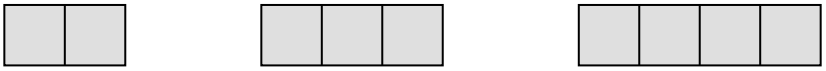
To change **kilograms** to **grams** . . . . . .

1 mark
Shape
level 5

To change **kilograms** to **tonnes** . . . . . .

1 mark
Shape
level 5

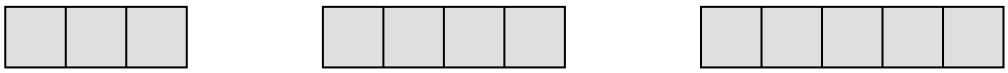
6 Ella and Steve each make this series of patterns using tiles.



pattern number 1 pattern number 2 pattern number 3

An expression to show the number of tiles in pattern number n is **$n + 1$**

(a) Ella **joins another tile** to each of her patterns.

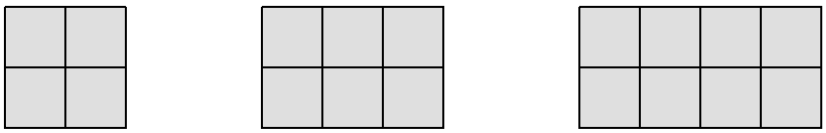


pattern number 1 pattern number 2 pattern number 3

For this series of patterns, write an expression to show the number of tiles in pattern number n

. . . .
1 mark
Algebra
level 5

(b) Steve **joins another row** to each of his patterns.



pattern number 1 pattern number 2 pattern number 3

For this series of patterns, write an expression to show the number of tiles in pattern number n

. . . .
1 mark
Algebra
level 6

7 Four people said they each threw a fair six-sided dice **120 times**.
Two of them made up their results.

The table shows how many times they said they threw different digits.

	Bev	Cal	Derek	Eva
one	23	17	20	20
two	26	17	20	18
three	20	21	20	22
four	23	20	20	21
five	25	26	20	17
six	3	19	20	22

(a) Write the name of one person who might have made up their results.

. . . . . .

Explain why you chose that person.

. . . . .
1 mark
Data
level 6

(b) Write the name of another person who might have made up their results.

. . . . . .

Explain why you chose that person.

. . . . .
1 mark
Data
level 6

8 Mark Price and Rick Barry were famous basketball players.

✓ calc paper

The table shows how many free throws they had.
It also shows how many of these free throws scored.

	Number of free throws	Number of free throws that scored
Mark Price	2362	2135
Rick Barry	4243	3818

Which player had a greater proportion of free throws that scored?
You **must** show working to explain your answer.

. . . . . .

2 marks
Number level 6