
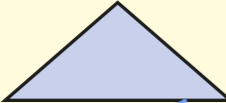
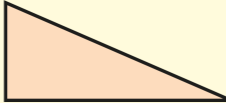
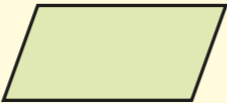
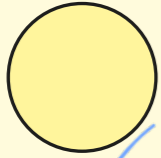
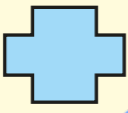
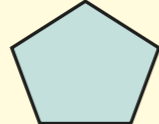
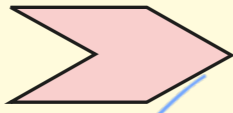
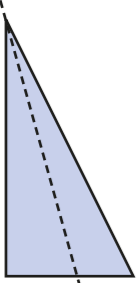
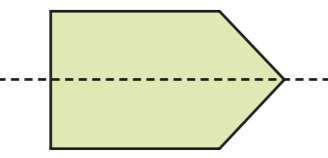
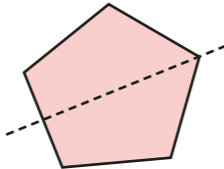
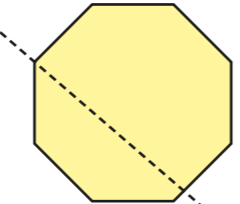
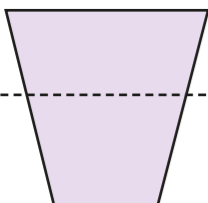
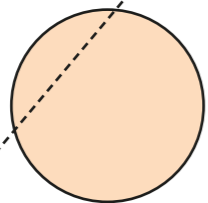
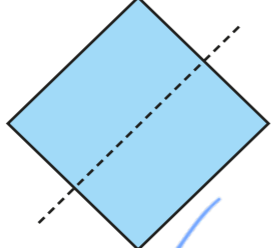
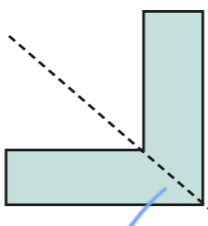


Lines of symmetry

1 Tick the shapes that have at least one line of symmetry.

			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>


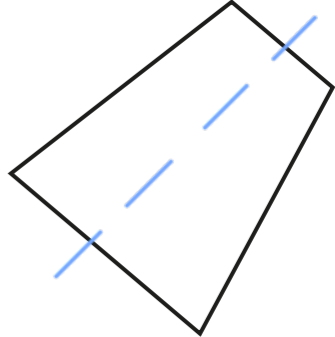
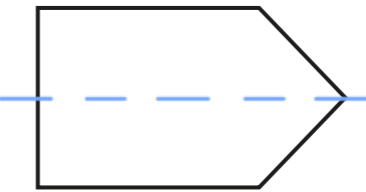
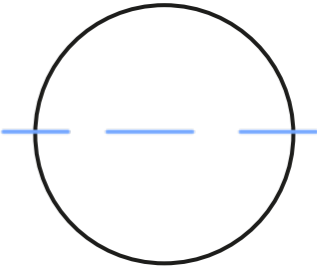
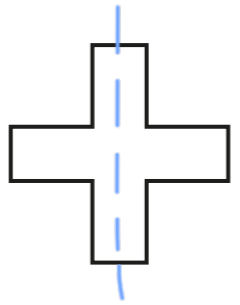
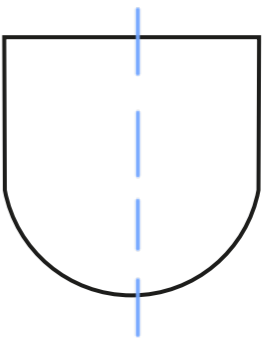
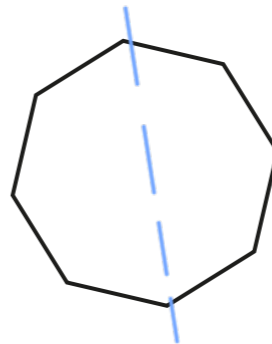
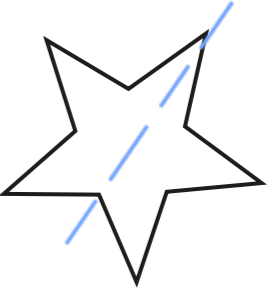
2 Tick the shapes that show a correct line of symmetry.

			
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
			
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

How did you know which shapes to tick?

3 Draw one line of symmetry on each shape.

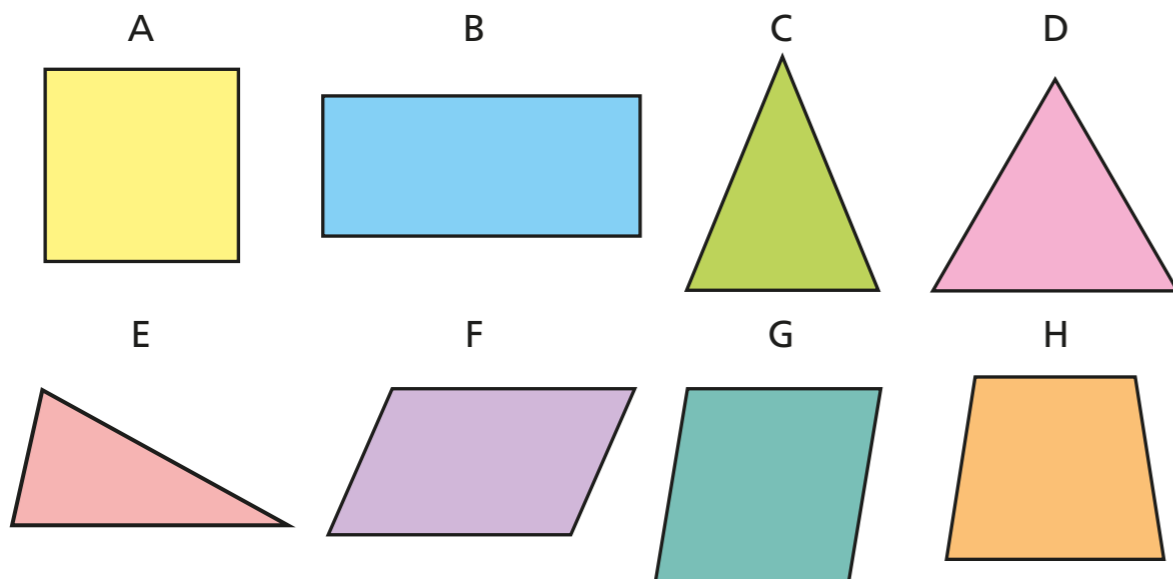
e.g.

a) 	e) 
b) 	f) 
c) 	g) 
d) 	h) 

Is there more than one possible answer for each?

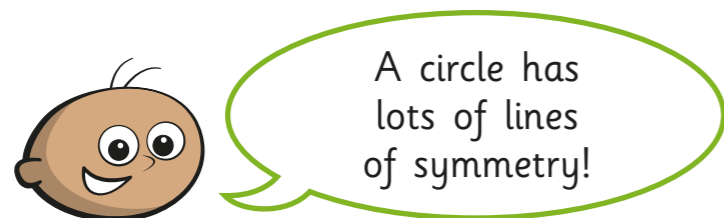
4 Sort the shapes into the table.

The first one has been done for you.



	1 line of symmetry	More than 1 line of symmetry	No lines of symmetry
Triangle	C	D	E
Quadrilateral	H	G A B	F

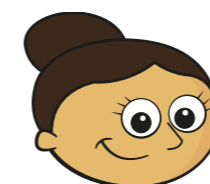
5 Tommy is folding a paper circle to find lines of symmetry.



Do you agree with Tommy? yes

Talk about it with a partner.

6 Here are 3 logos.



Dora

All of these logos have lines of symmetry because they're circles.



Mo

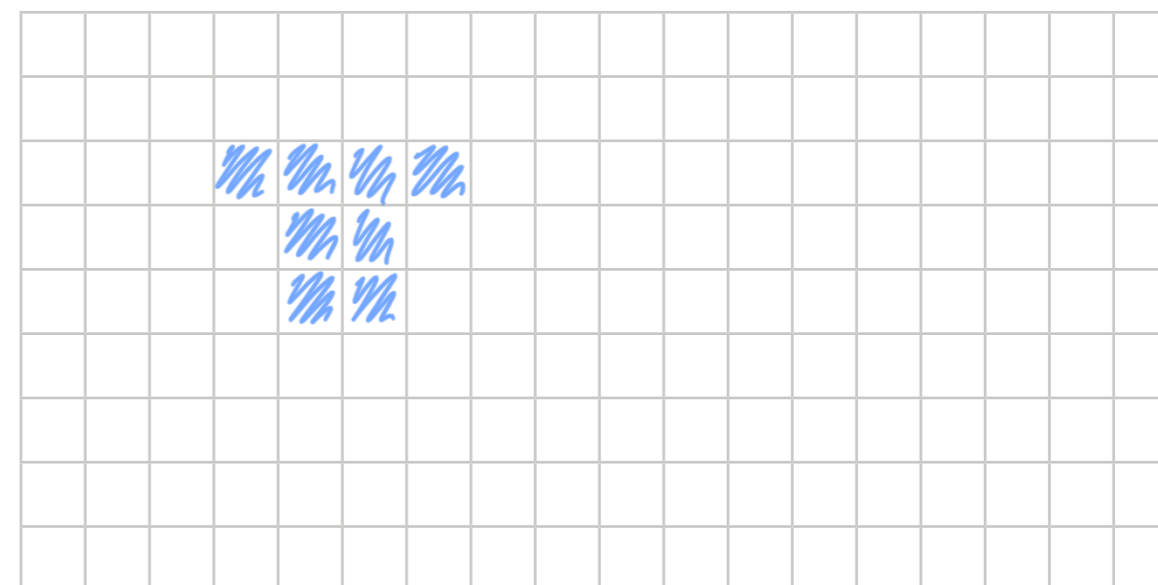
I disagree because the design on them isn't symmetrical.

Who do you agree with? Mo

Talk about it with a partner.

7 Shade a maximum of 8 squares to make a symmetrical shape.

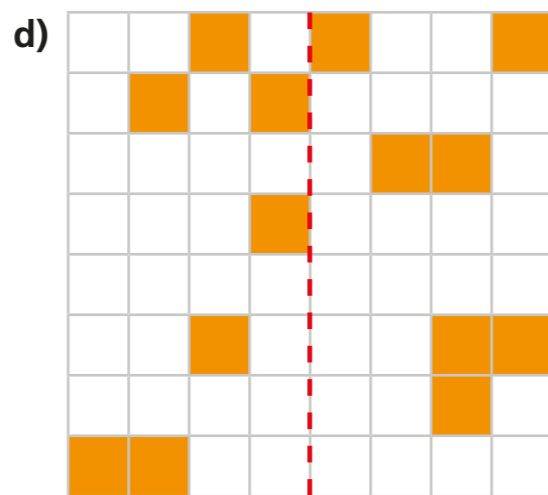
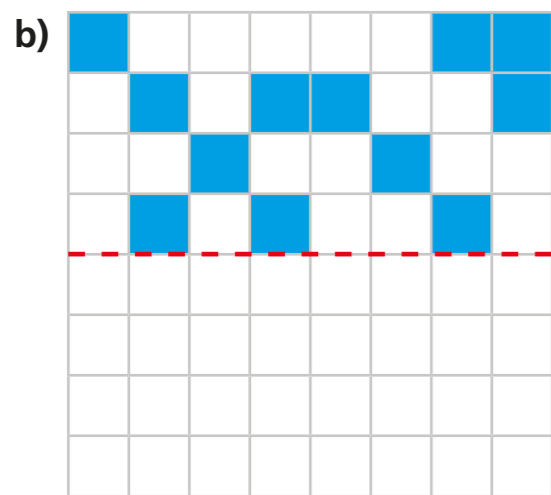
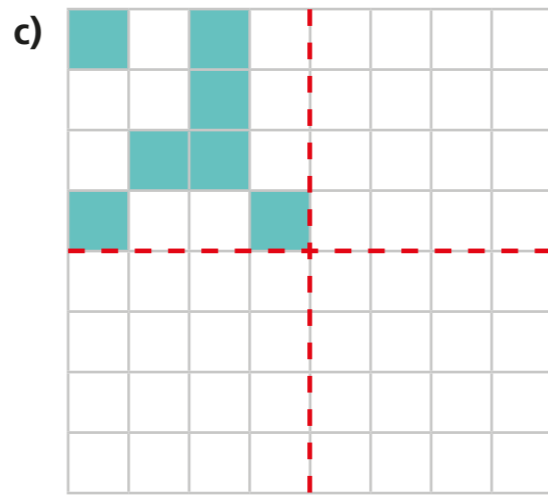
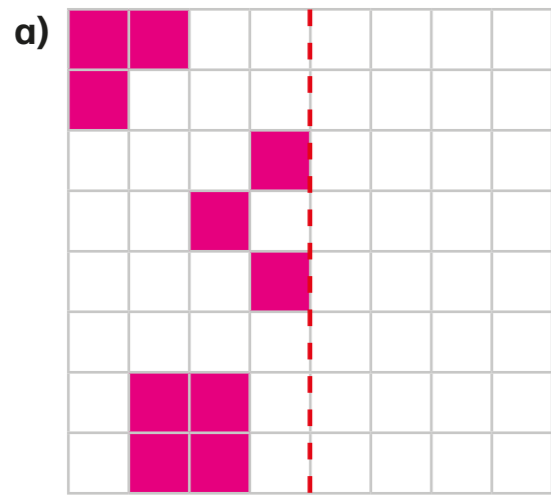
e.g.



Compare answers with a partner. How many different shapes can you make?

Complete a symmetric figure

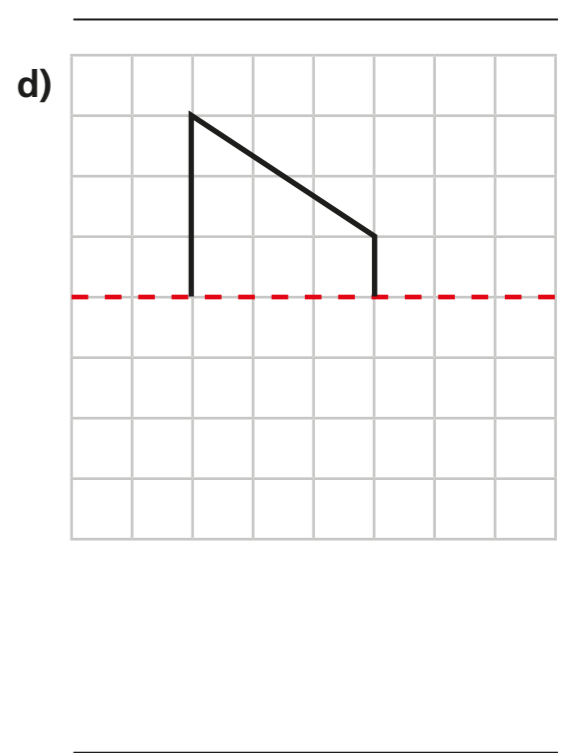
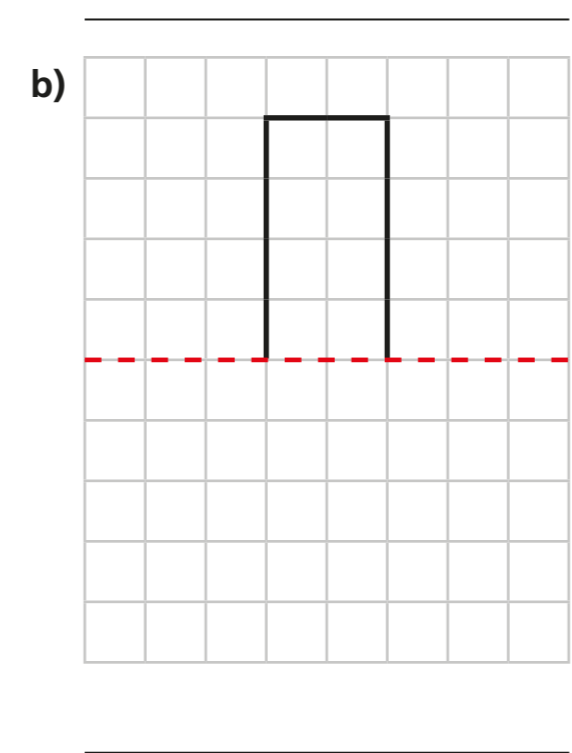
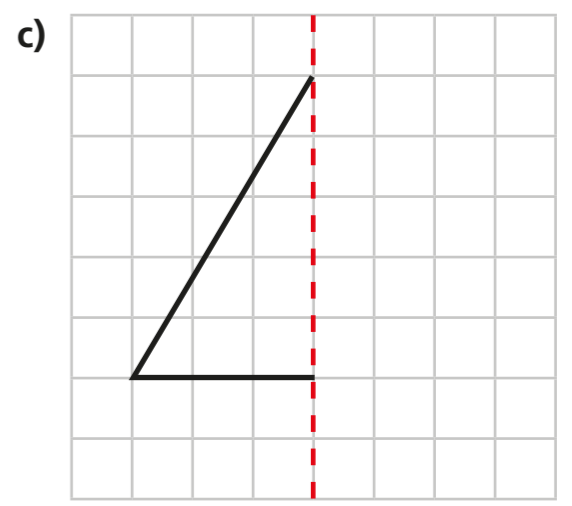
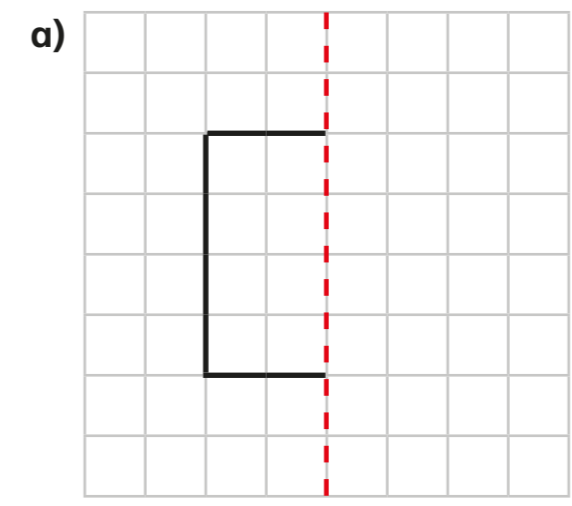
1 Shade squares to make the patterns symmetrical.



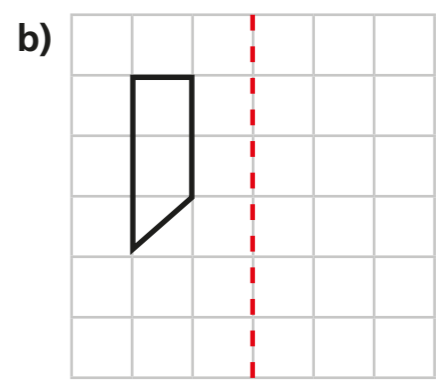
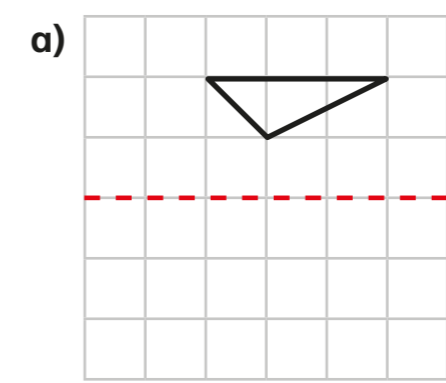
Compare methods with a partner.




2 Complete the shapes according to the lines of symmetry. Name each shape once you have drawn it.

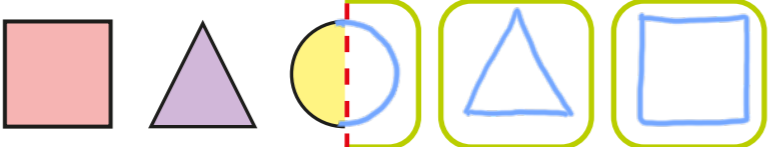


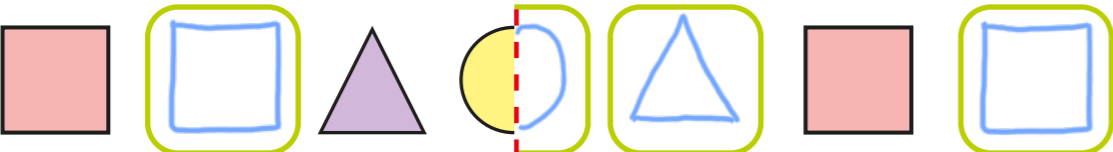
3 Reflect the shapes in the given mirror line.



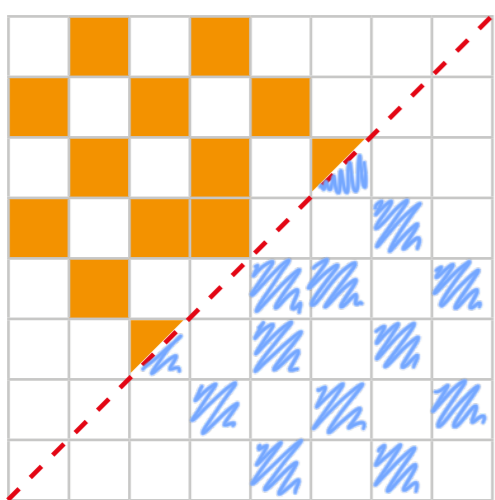
4 Each pattern is symmetrical around the mirror line.
Complete the patterns.

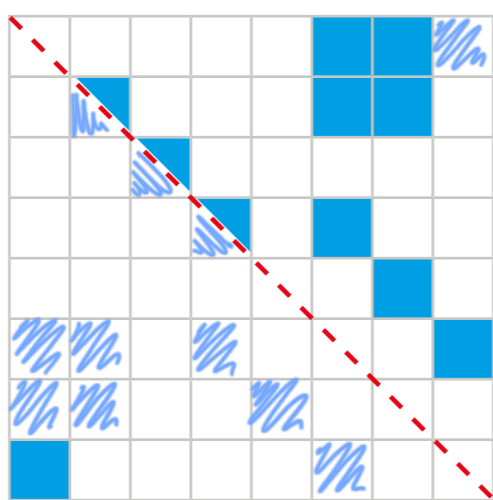
a) 

b) 

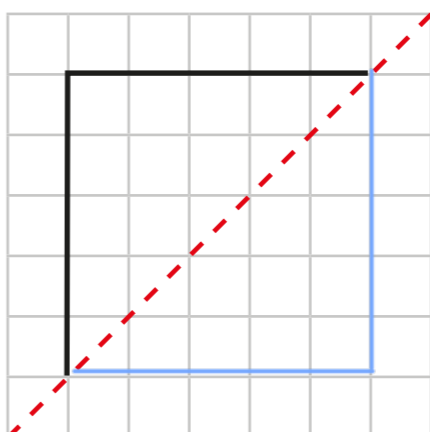
c) 

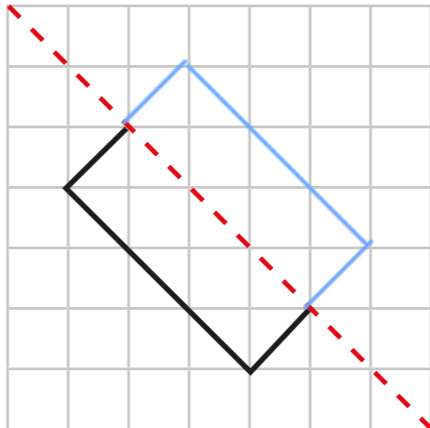
5 Shade squares to make the patterns symmetrical.

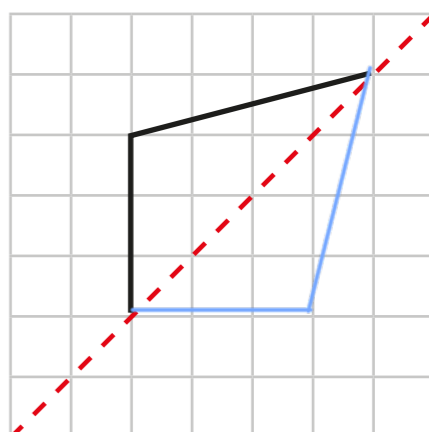
a) 

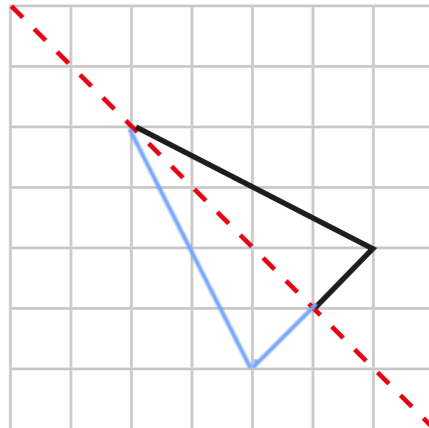
b) 

6 Complete the symmetric figures.

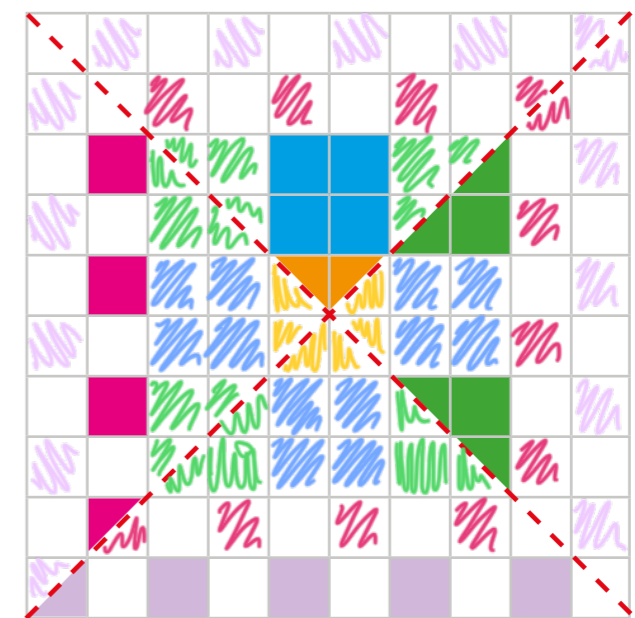
a) 

b) 

c) 

d) 

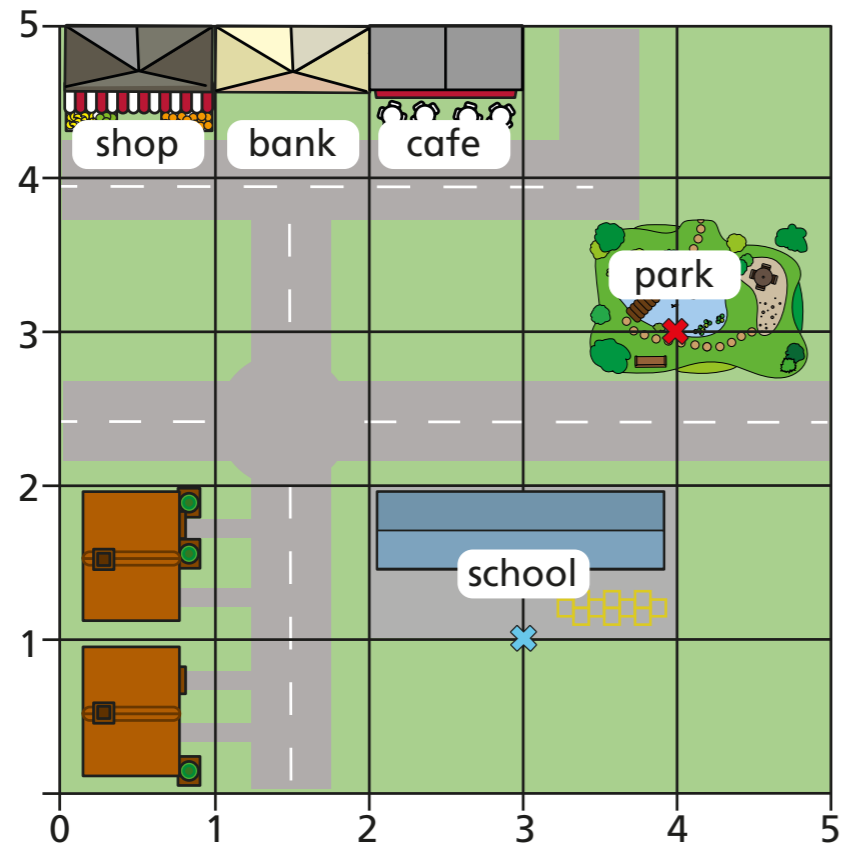
7 Complete the symmetric figure.



Create your own question like this for a partner.

Describe position

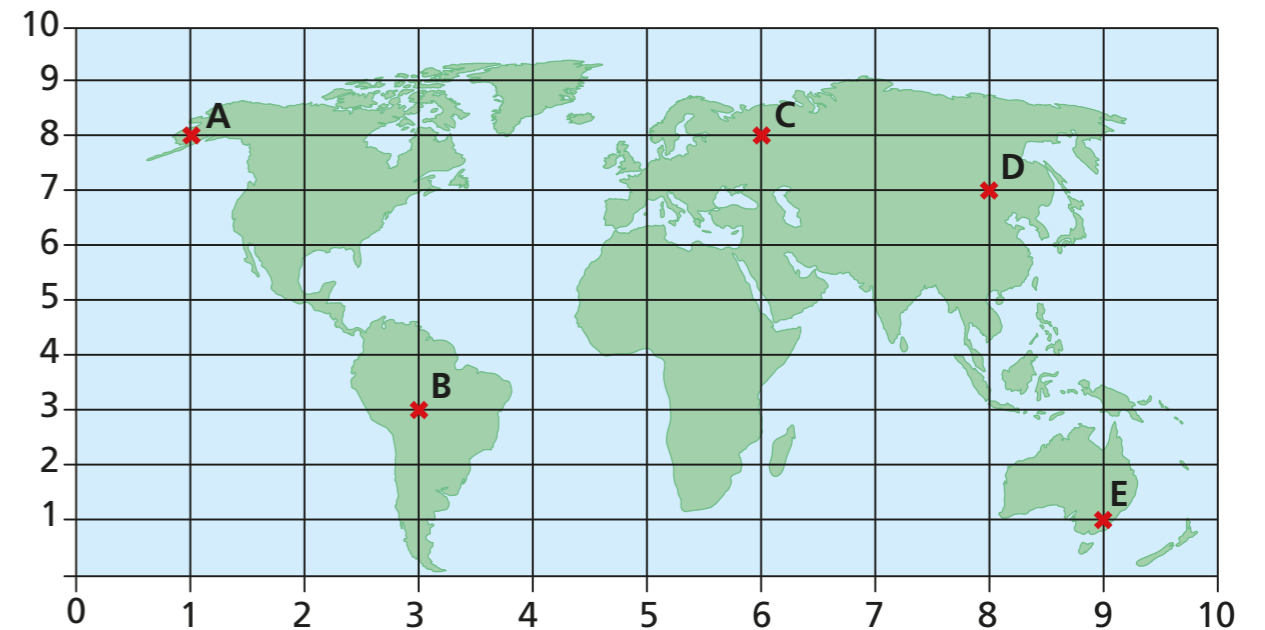
1 Here is a map of part of a town.



- a) Which place is next to the shop? bank
- b) Which place is next to the bank and close to the park? cafe
- c) The front gates of the school have been marked with a cross. Write the coordinates of the school gates. (3 , 1)
- d) The slide in the park has been marked with a cross. Write the coordinates of the slide. (4 , 3)

Compare answers with a partner.

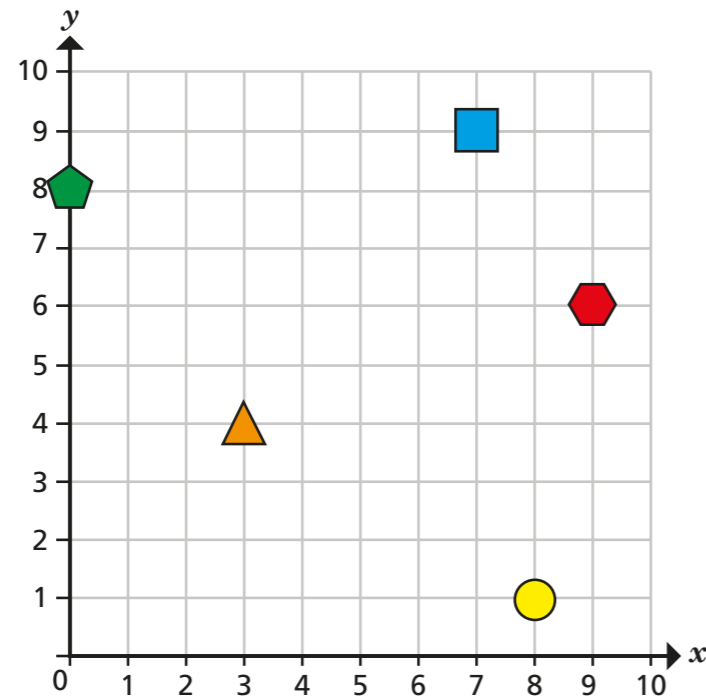
2 A map of the world is drawn on a grid. Some locations are marked at points A to E.



- a) Which point is at the bottom right of the grid? E
- b) Which two points are to the left of point C on the map? A and B
- c) Write the coordinates of each location.
 A (1 , 8) D (8 , 7)
 B (3 , 3) E (9 , 1)
 C (6 , 8)



3 Some shapes are drawn on a grid.



a) Tommy, Dora and Eva are working out the coordinates of the pentagon.

Dora: The coordinates of the pentagon are (0, 8).

Tommy: The coordinates of the pentagon are (8, 0).

Eva: I think you are both right!

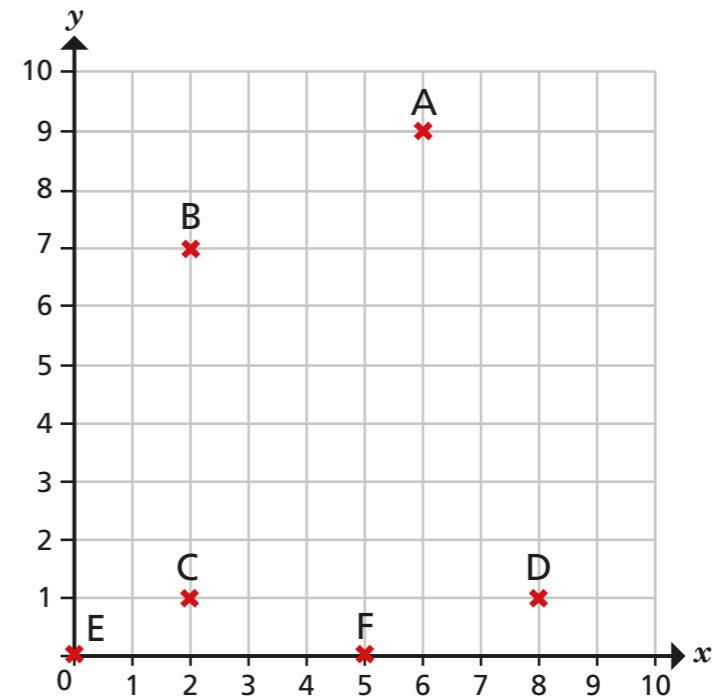
Who is correct? Dora

Talk about it with a partner.

b) Write the coordinates of the other shapes.

square (7 , 9) triangle (3 , 4)
 circle (8 , 1) hexagon (9 , 6)

4 Six points are drawn on a grid.



a) Write the coordinates of each point.

A (6 , 9) C (2 , 1) E (0 , 0)
 B (2 , 7) D (8 , 1) F (5 , 0)

b) Teddy and Alex each choose a point.

Teddy: Our x coordinates are the same.

Alex: My y coordinate is greater than Teddy's.

What points have Alex and Teddy chosen?

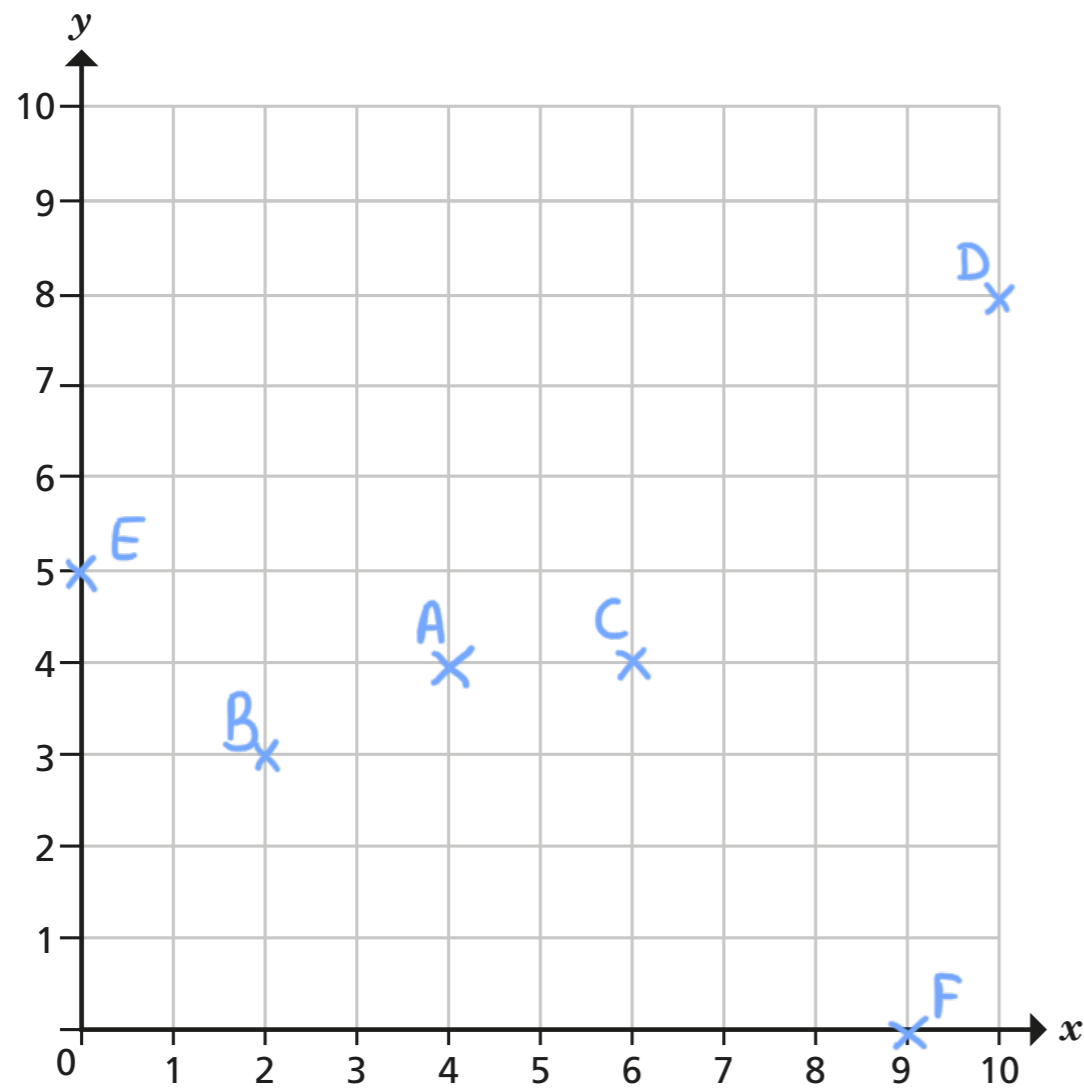
Alex (2 , 7) Teddy (2 , 1)

Draw on a grid

1 The cards show the coordinates of six points.

A (4, 4)	B (2, 3)	C (6, 4)
D (10, 8)	E (0, 5)	F (9, 0)

Plot and label the points on the grid.



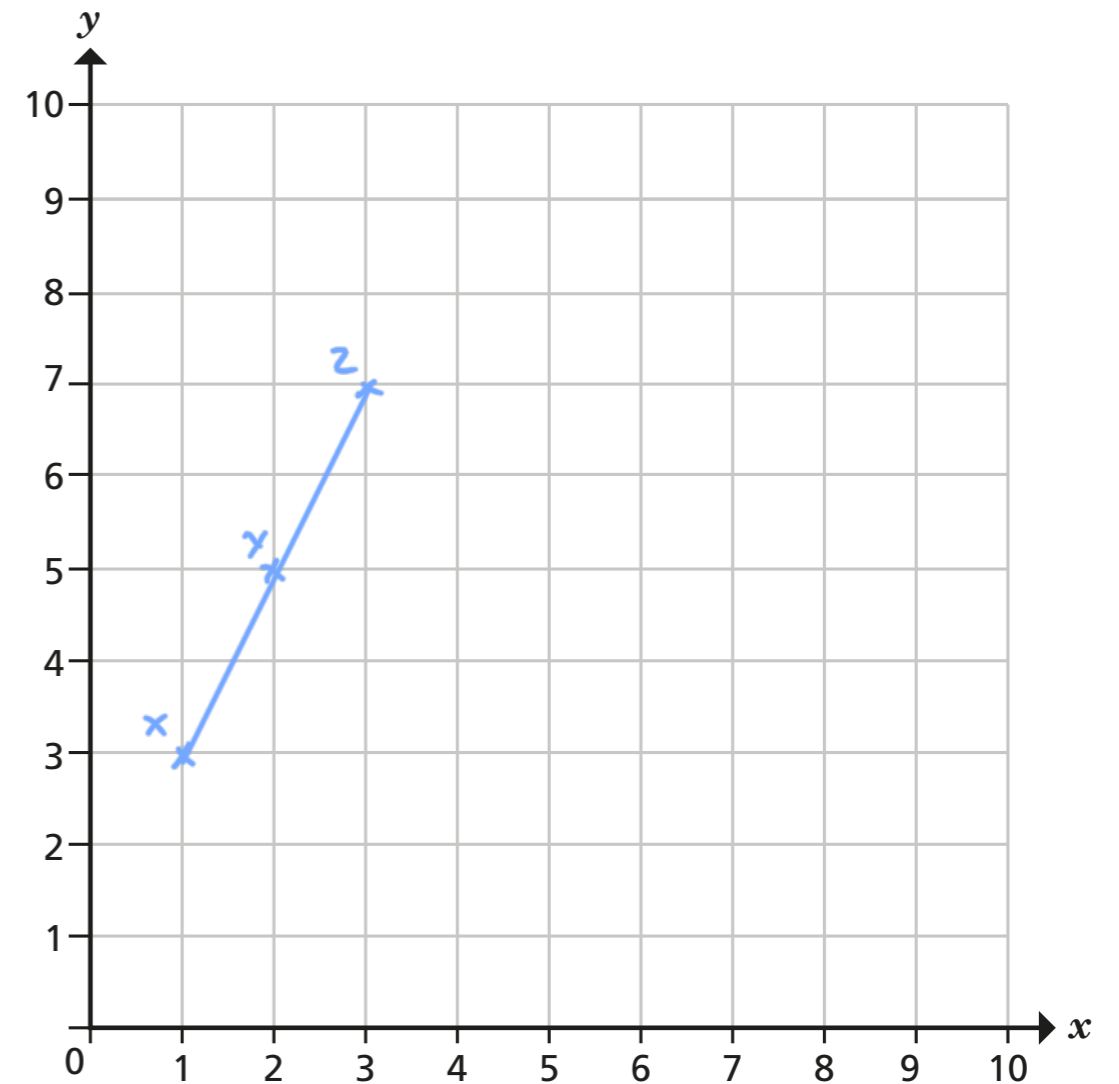
Compare answers with a partner.



2 Here are the coordinates of three points.

X (1, 3)	Y (2, 5)	Z (3, 7)
----------	----------	----------

a) Plot and label the points on the grid.



b) Join up the points.

What do you notice?

c) Write the coordinates of two other points that fit this pattern.

e.g. (0, 1) and (4, 9)

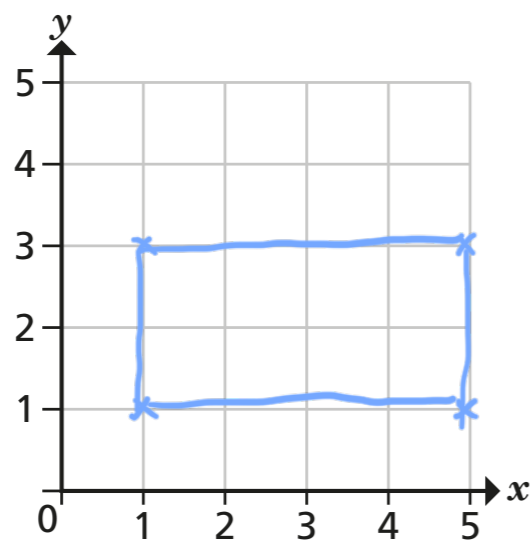
Compare answers with a partner.



3 Here are the coordinates of the vertices of a rectangle.

- (1, 1)
- (5, 1)
- (1, 3)
- (5, 3)

Draw the rectangle on the grid.



4 Two squares are drawn on a grid.

Here are the coordinates of the vertices of each square.

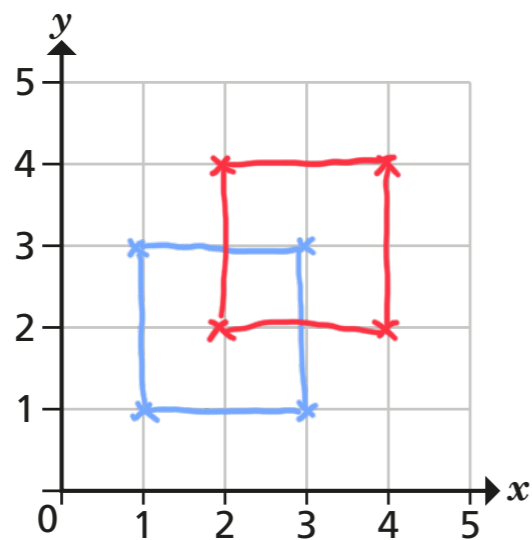
Square A (1, 1) (1, 3) (3, 3) (3, 1)

Square B (2, 2) (2, 4) (4, 4) (4, 2)

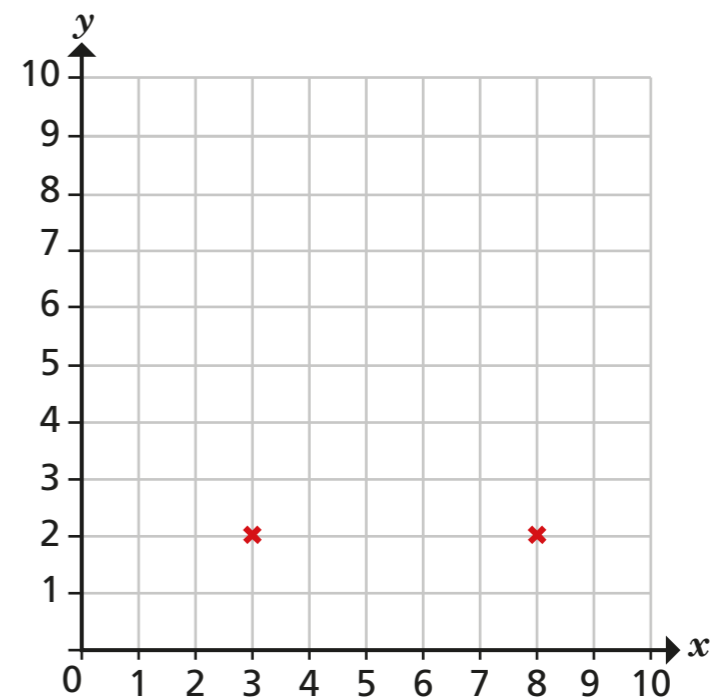
a) Do you think the squares will overlap?

Yes

b) Draw on the grid to check your answer.



5 Two vertices of a triangle are shown on the grid.



a) What are the coordinates of the two vertices shown?

(3, 2) and (8, 2)

b) Give a possible coordinate for the third vertex, if the triangle is right-angled.

e.g. (3, 10)

c) Give a possible coordinate for the third vertex, if the triangle is isosceles.

e.g. (8, 7)

Compare answers with a partner.

6 The coordinates of one vertex of a square are (10, 10). Give possible coordinates for the other three vertices.

e.g. (0, 0) (0, 10) (10, 0)

How many different answers can you find?