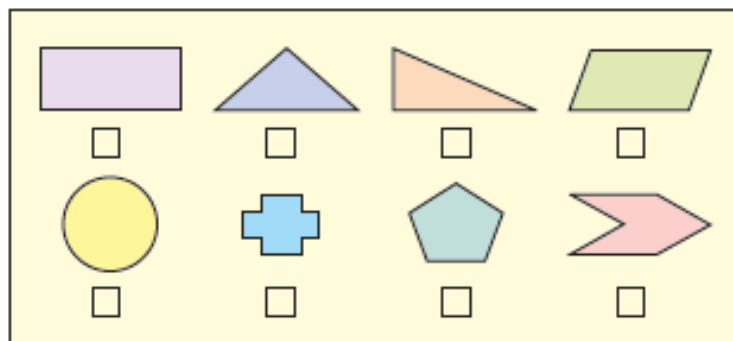
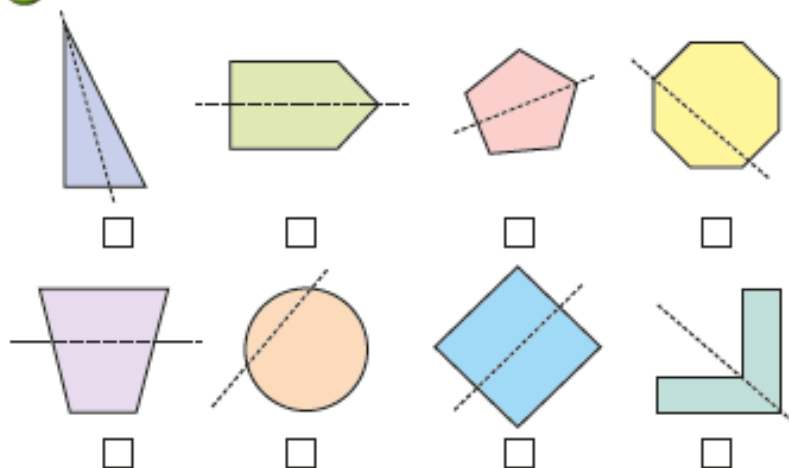


Lines of symmetry

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



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



How did you know which shapes to tick?

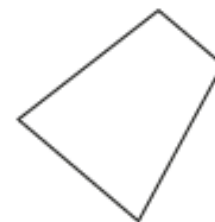


3 Draw one line of symmetry on each shape.

a)



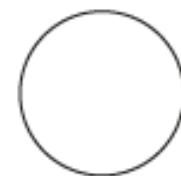
e)



b)



f)



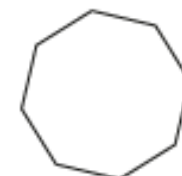
c)



g)



d)



h)

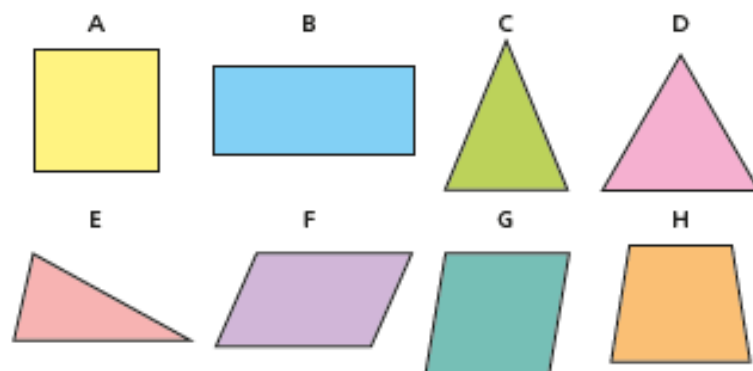


Is there more than one possible answer for each?



- 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			
Quadrilateral		A	

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



A circle has lots of lines of symmetry!

Do you agree with Tommy? _____

Talk about it with a partner.

- 6 Here are 3 logos.



Dora

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



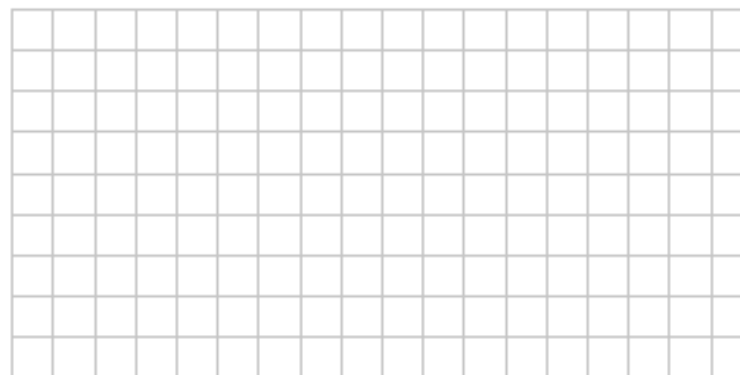
Mo

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

Who do you agree with? _____

Talk about it with a partner.

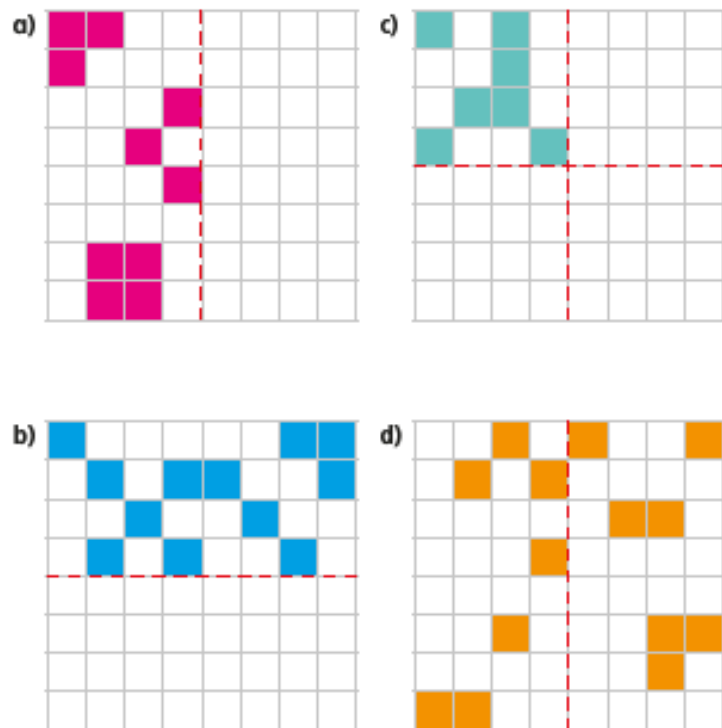
- 7 Shade a maximum of 8 squares to make a symmetrical shape.



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

Complete a symmetric figure

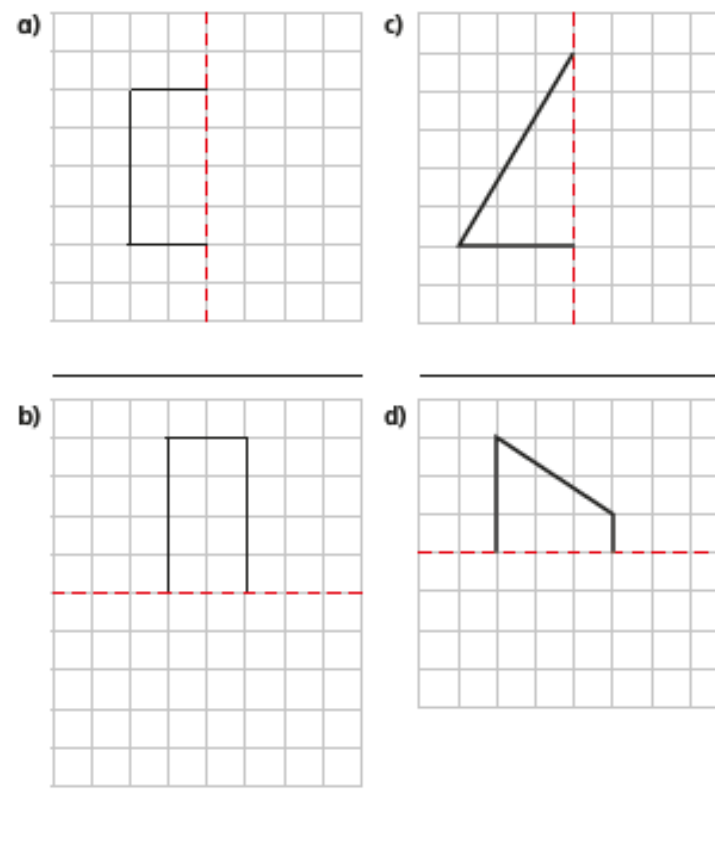
- 1 Shade squares to make the patterns symmetrical.



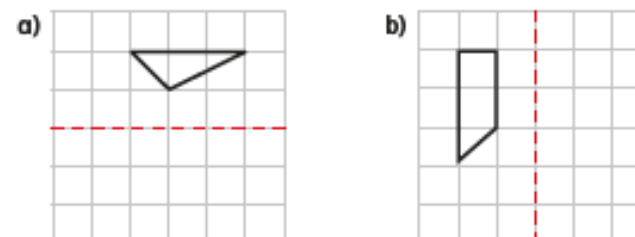
Compare methods with a partner.



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



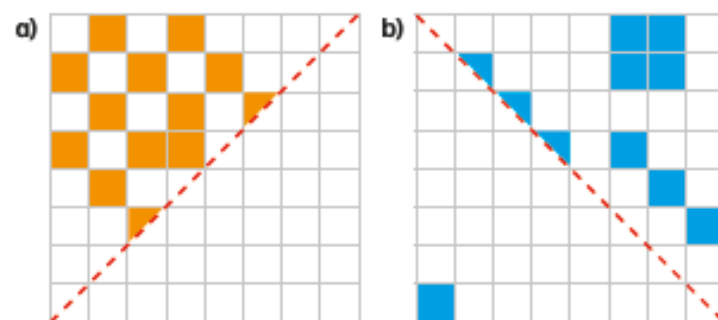
- 3 Reflect the shapes in the given mirror line.



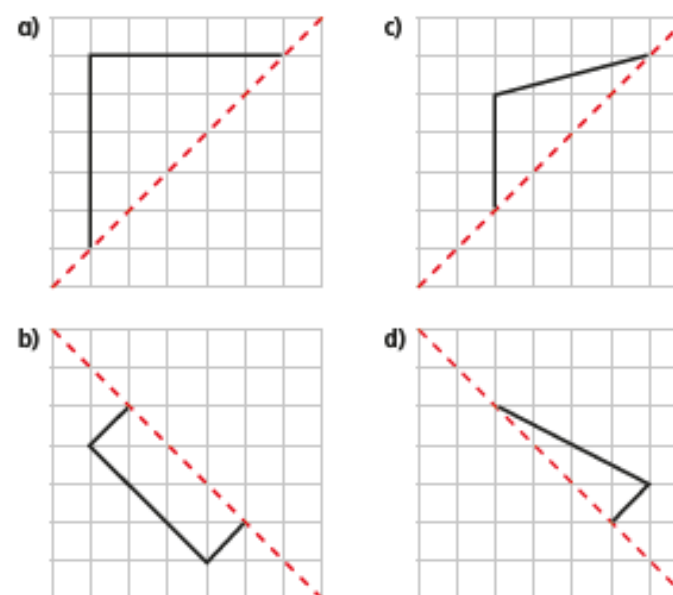
- 4 Each pattern is symmetrical around the mirror line.
Complete the patterns.



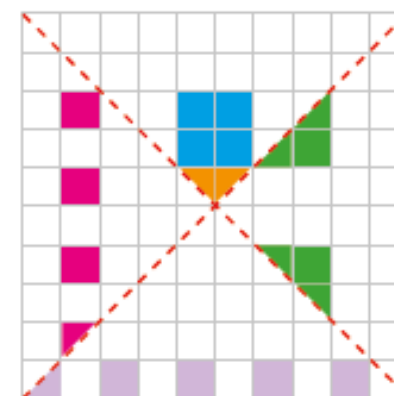
- 5 Shade squares to make the patterns symmetrical.



- 6 Complete the symmetric figures.



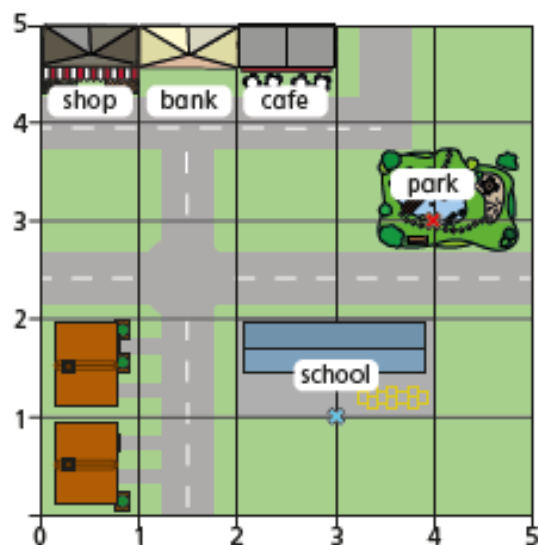
- 7 Complete the symmetric figure.



Create your own question like this for a partner.

Describe position

- 1 Here is a map of part of a town.

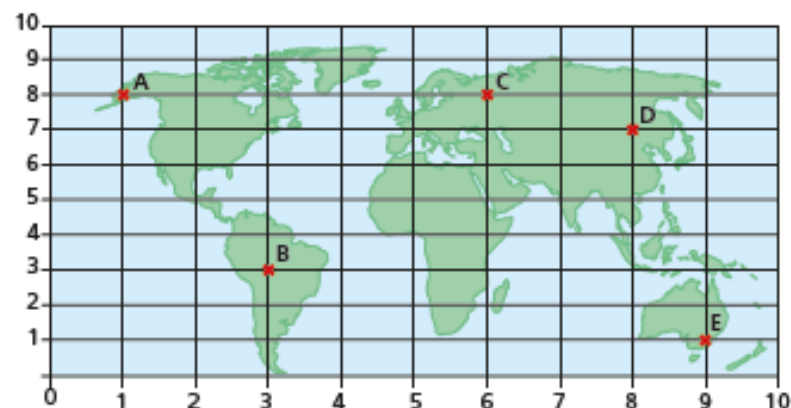


- a) Which place is next to the shop? _____
- b) Which place is next to the bank and close to the park? _____
- c) The front gates of the school have been marked with a cross.
Write the coordinates of the school gates. (,)
- d) The slide in the park has been marked with a cross.
Write the coordinates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

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?

- b) Which two points are to the left of point C on the map?
_____ and _____
- c) Write the coordinates of each location.

A (,)

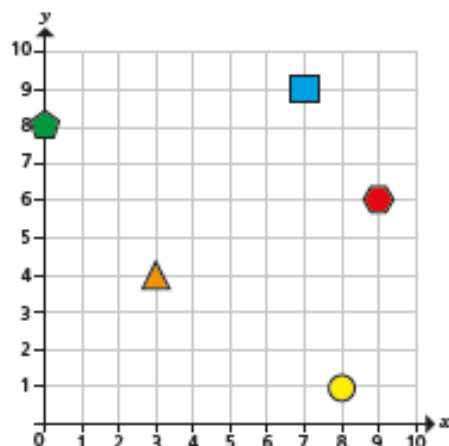
D (,)

B (,)

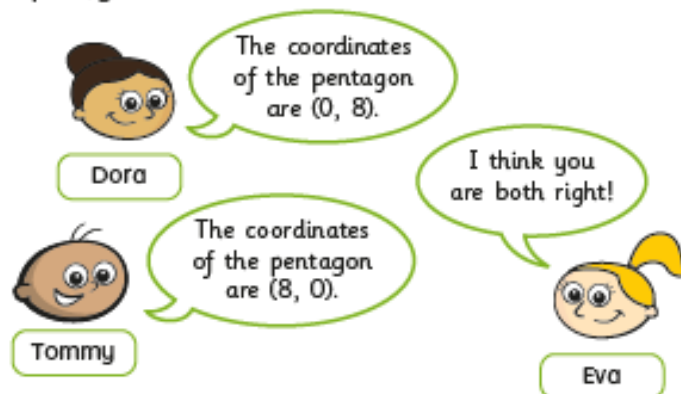
E (,)

C (,)

- 3 Some shapes are drawn on a grid.



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



Who is correct? _____

Talk about it with a partner.

- b) Write the coordinates of the other shapes.

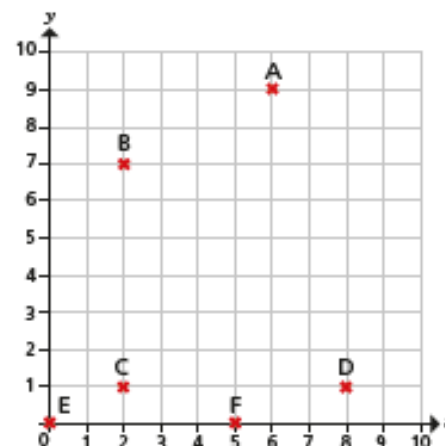
square (,)

triangle (,)

circle (,)

hexagon (,)

- 4 Six points are drawn on a grid.



- a) Write the coordinates of each point.

A (,)

C (,)

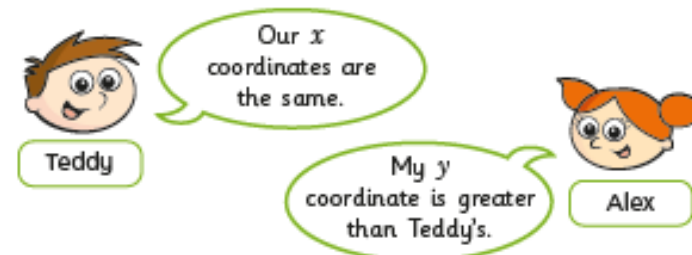
E (,)

B (,)

D (,)

F (,)

- b) Teddy and Alex each choose a point.



What points have Alex and Teddy chosen?

Alex (,)

Teddy (,)

Draw on a grid

- 1 The cards show the coordinates of six points.

A (4, 4)

B (2, 3)

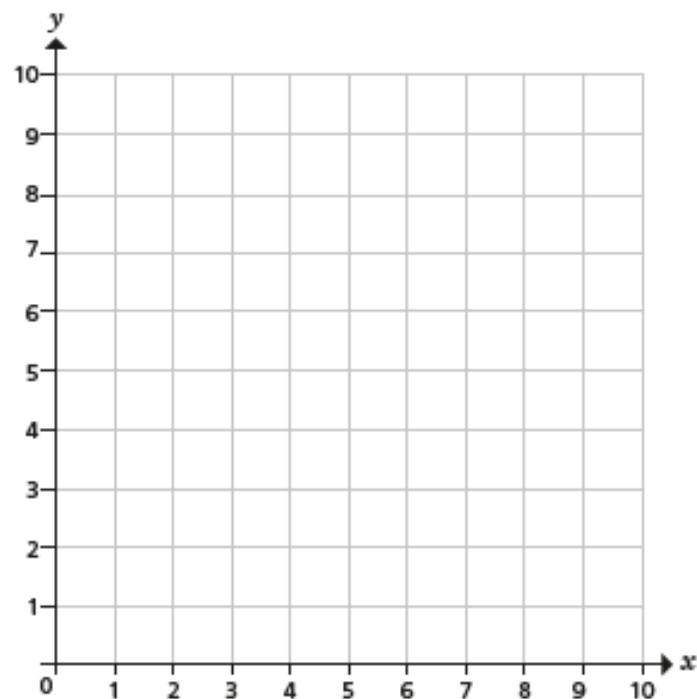
C (6, 4)

D (10, 8)

E (0, 5)

F (9, 0)

Plot and label the points on the grid.



Compare answers with a partner.



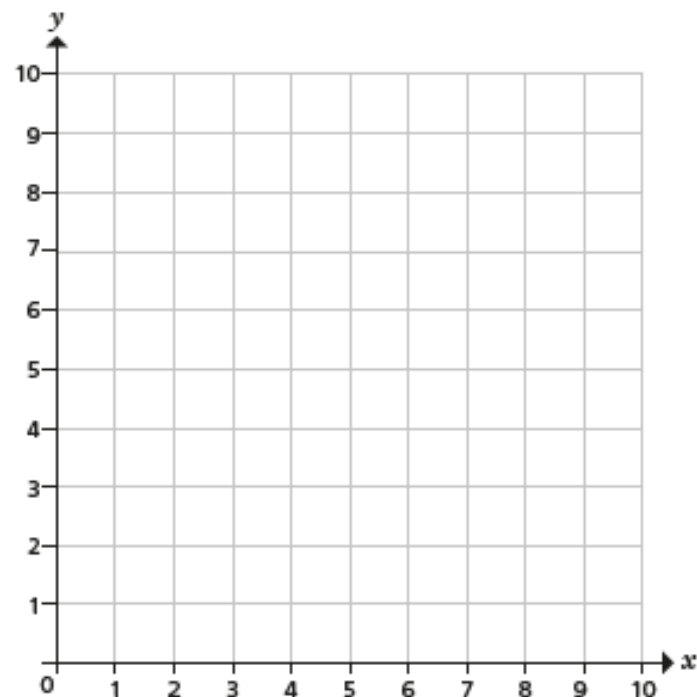
- 2 Here are the coordinates of three points.

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.

(,) and (,)

Compare answers with a partner.



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

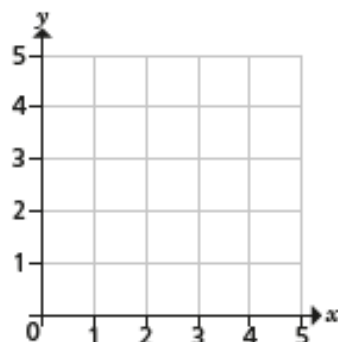
(1, 1)

(5, 1)

(1, 3)

(5, 3)

Draw the rectangle on the grid.



- 4 Two squares are drawn on a grid.

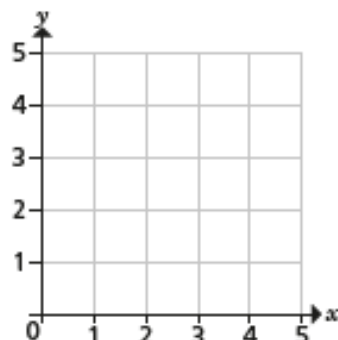
Here are the coordinates of the vertices of each square.

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

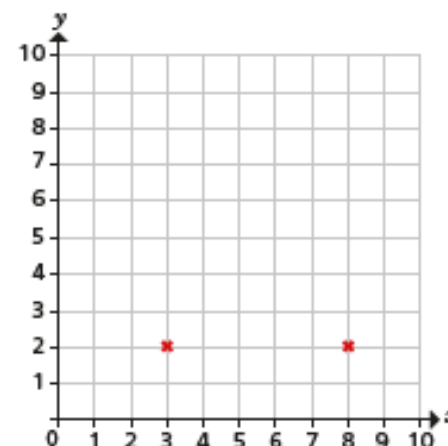
Square B (2, 2) (2, 4) (4, 4) (4, 2)

a) Do you think the squares will overlap? _____

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?

(,) and (,)

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

(,)

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

(,)

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.

(,) (,) (,)

How many different answers can you find?