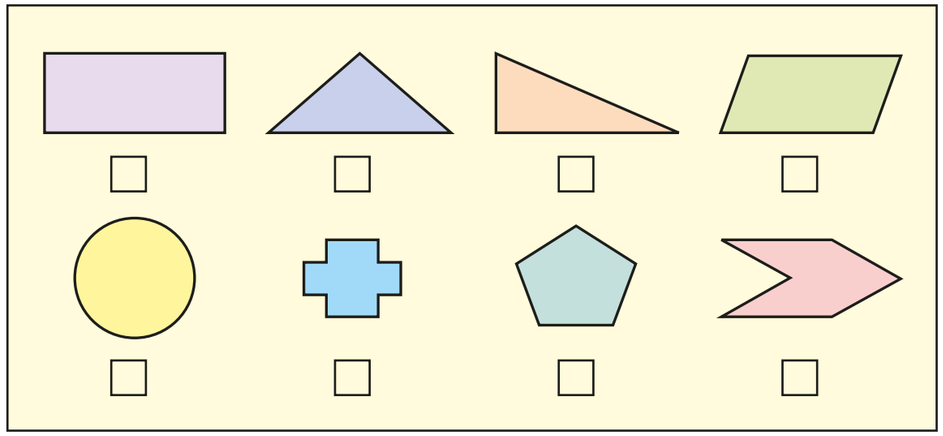
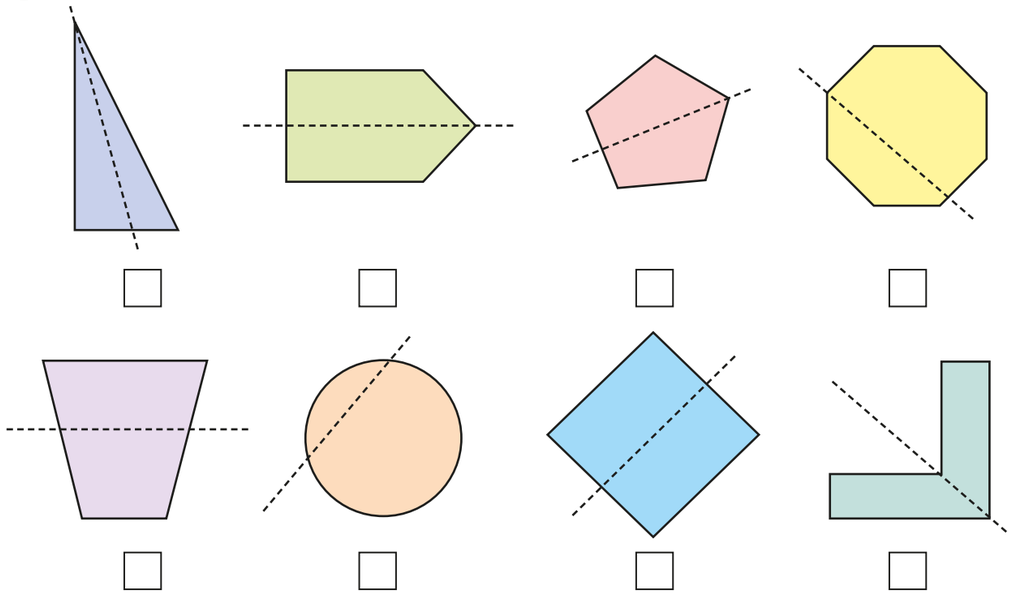
Lines of symmetry

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



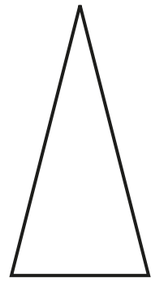
2 Tick the shapes that show a correct line of symmetry.



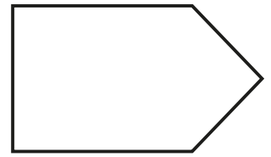
How did you know which shapes to tick?

3 Draw one line of symmetry on each shape.

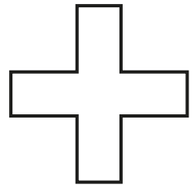
a)



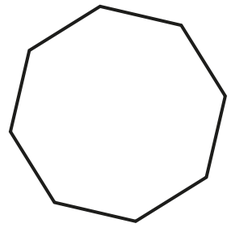
b)



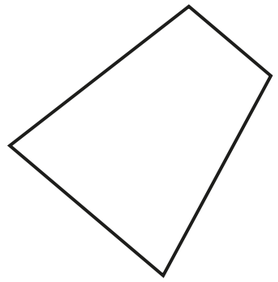
c)



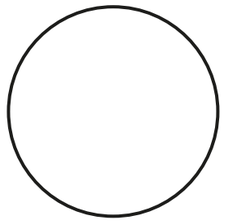
d)



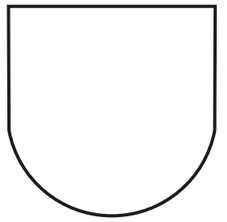
e)



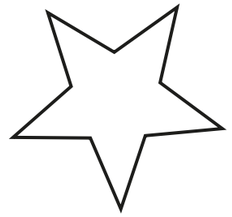
f)



g)



h)



Is there more than one possible answer for each?

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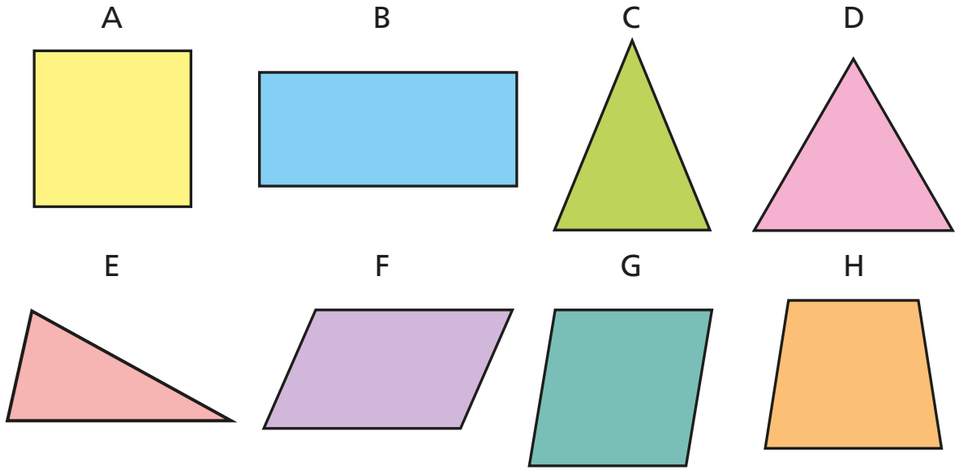
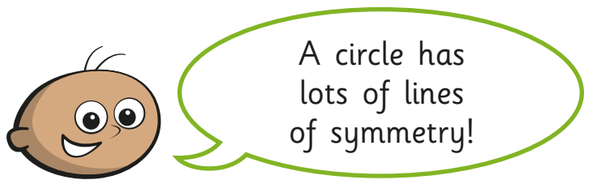
4 Sort the shapes into the table.

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	

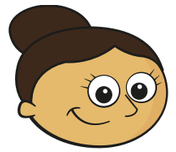
5 Tommy is folding a paper circle to find lines of symmetry.



Do you agree with Tommy? _____

Talk about it with a partner.

6 Here are 3 logos.



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

Dora

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

Mo

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?

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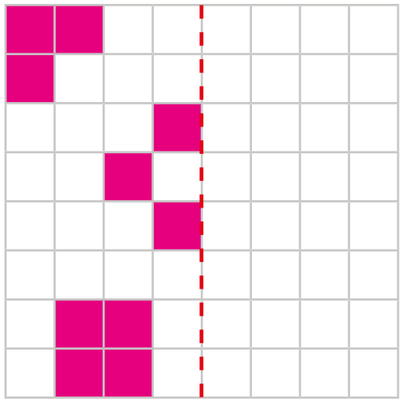
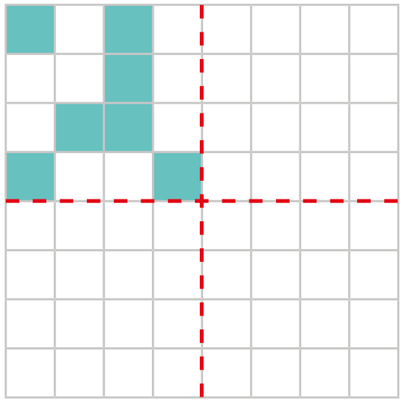
Complete a symmetric figure

1 Shade squares to make the patterns symmetrical.

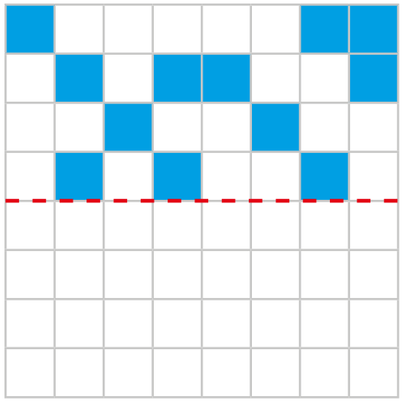
a)



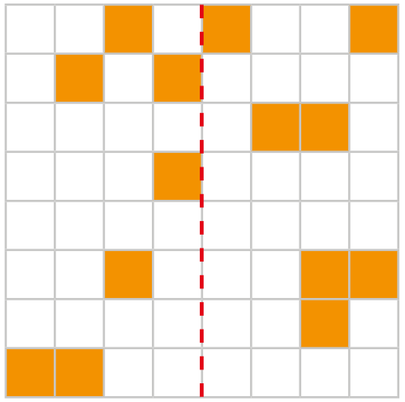
c)



b)



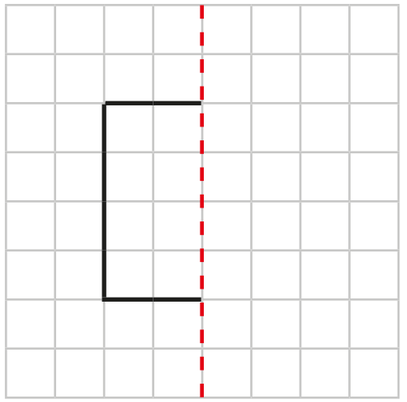
d)



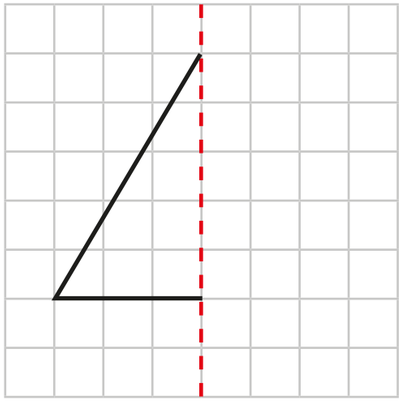
Compare methods with a partner.

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

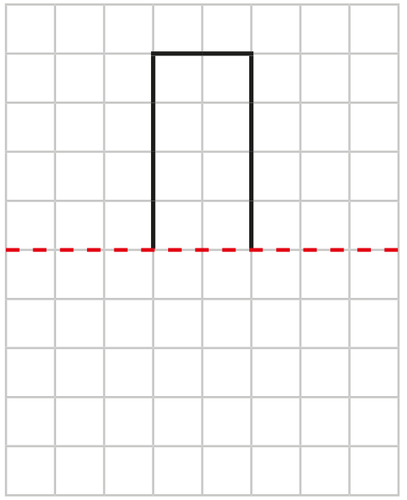
a)



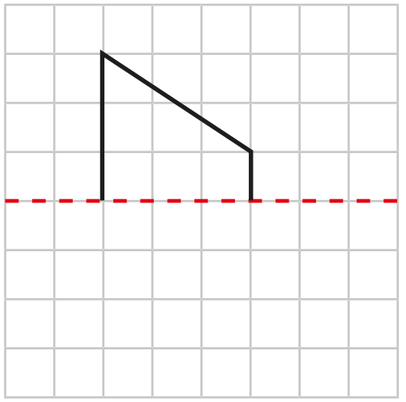
c)



b)

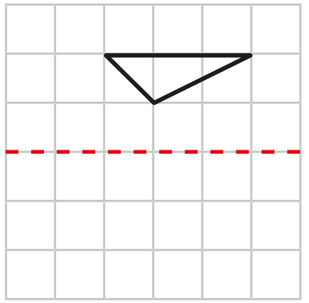


d)

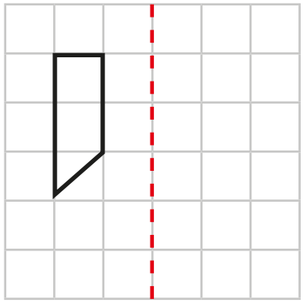


3 Reflect the shapes in the given mirror line.

a)



b)



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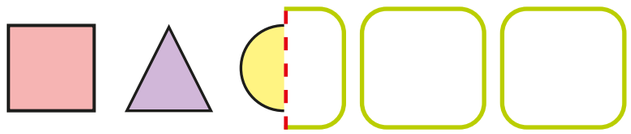
4 Each pattern is symmetrical around the mirror line.

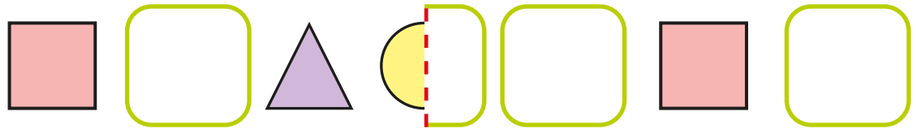
Complete the patterns.

a)

b)

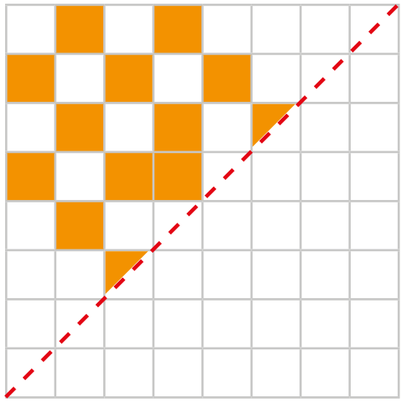


c)

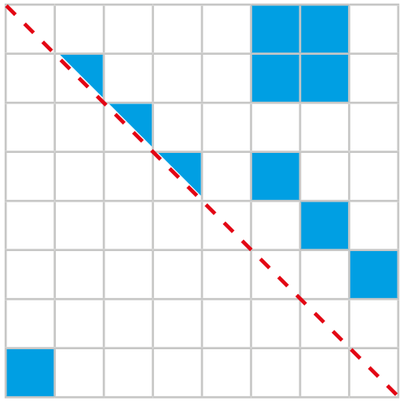


5 Shade squares to make the patterns symmetrical.

a)

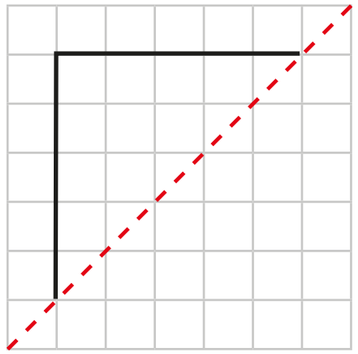


b)

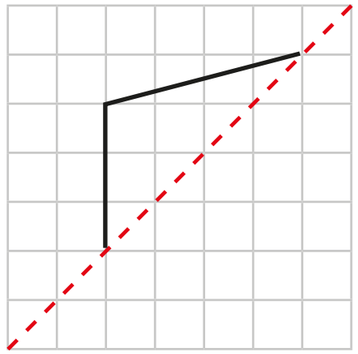


6 Complete the symmetric figures.

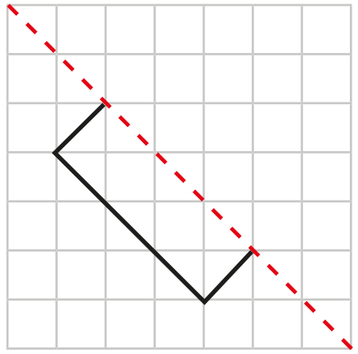
a)



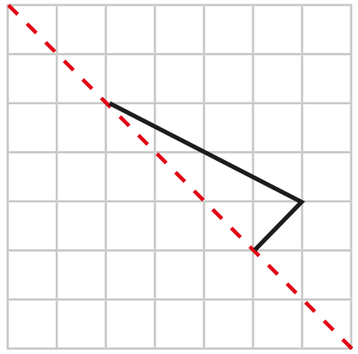
c)



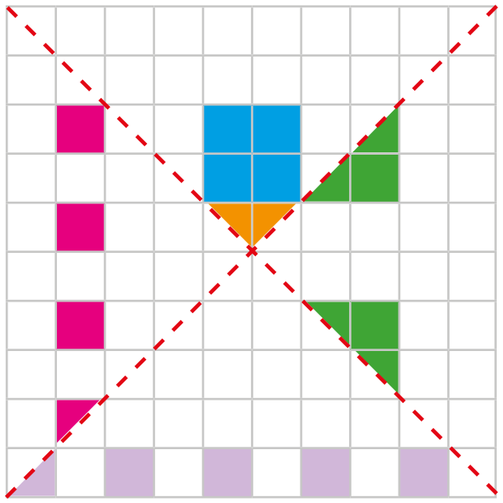
b)



d)



7 Complete the symmetric figure.



Create your own question like this for a partner.

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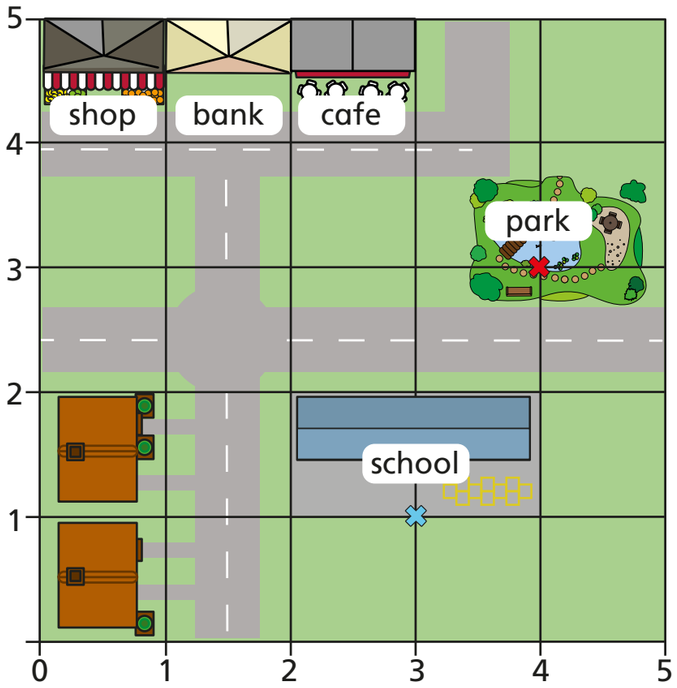
Describe position

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. (☐ , ☐)

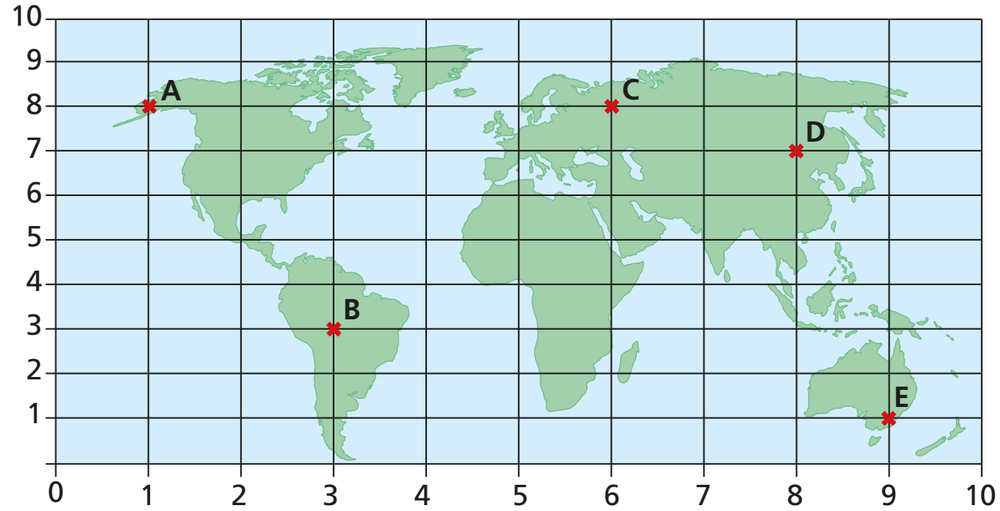
d) The slide in the park has been marked with a cross.

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 (☐ , ☐)

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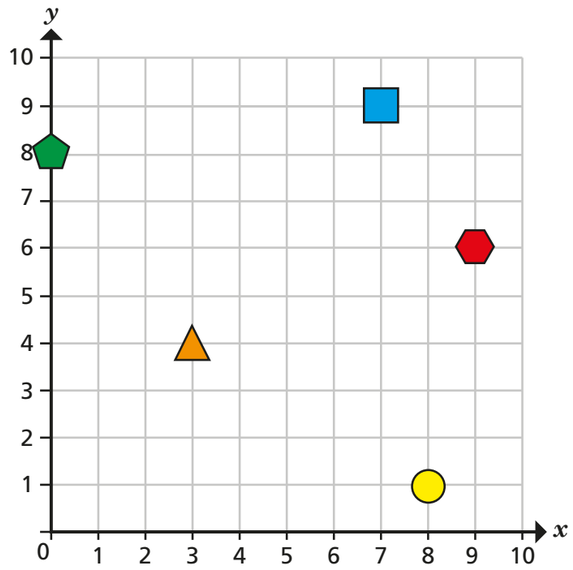
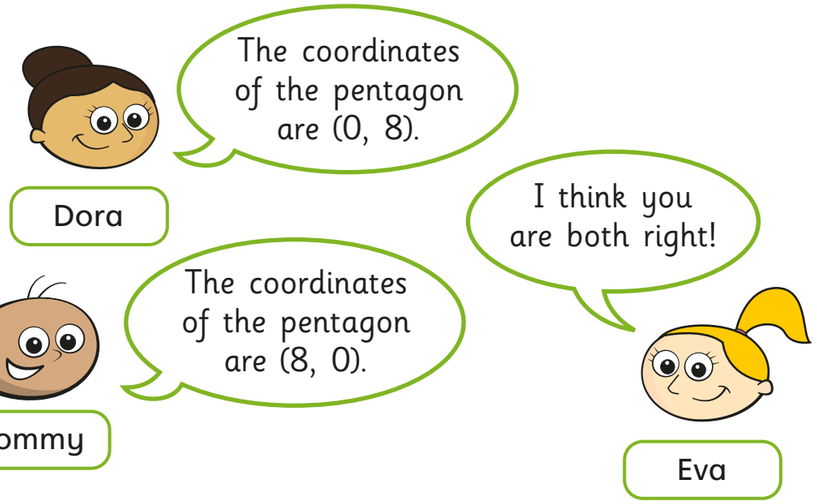
3 Some shapes are drawn on a grid.



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



Who is correct? _____

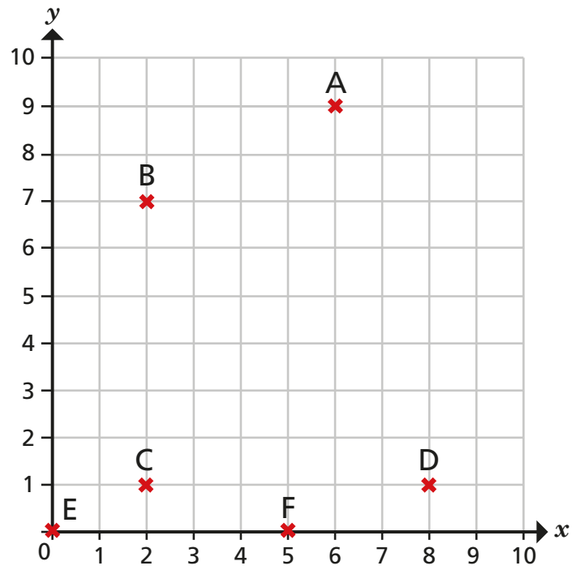
Talk about it with a partner.

b) Write the coordinates of the other shapes.

square (☐ , ☐) triangle (☐ , ☐)

circle (☐ , ☐) hexagon (☐ , ☐)

4 Six points are drawn on a grid.

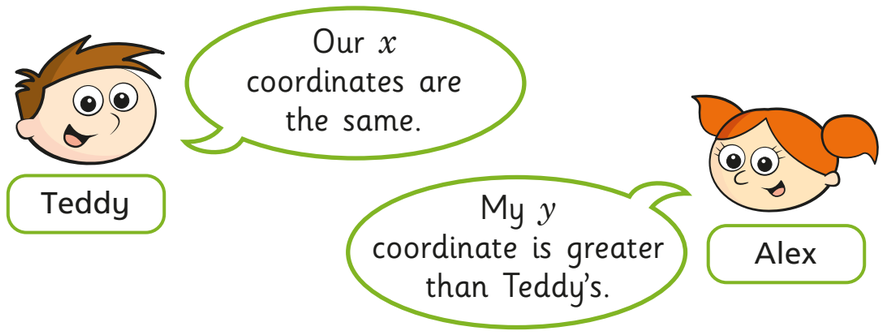


a) Write the coordinates of each point.

A (☐ , ☐) C (☐ , ☐) E (☐ , ☐)

B (☐ , ☐) D (☐ , ☐) F (☐ , ☐)

b) Teddy and Alex each choose a point.



What points have Alex and Teddy chosen?

Alex (☐ , ☐) Teddy (☐ , ☐)

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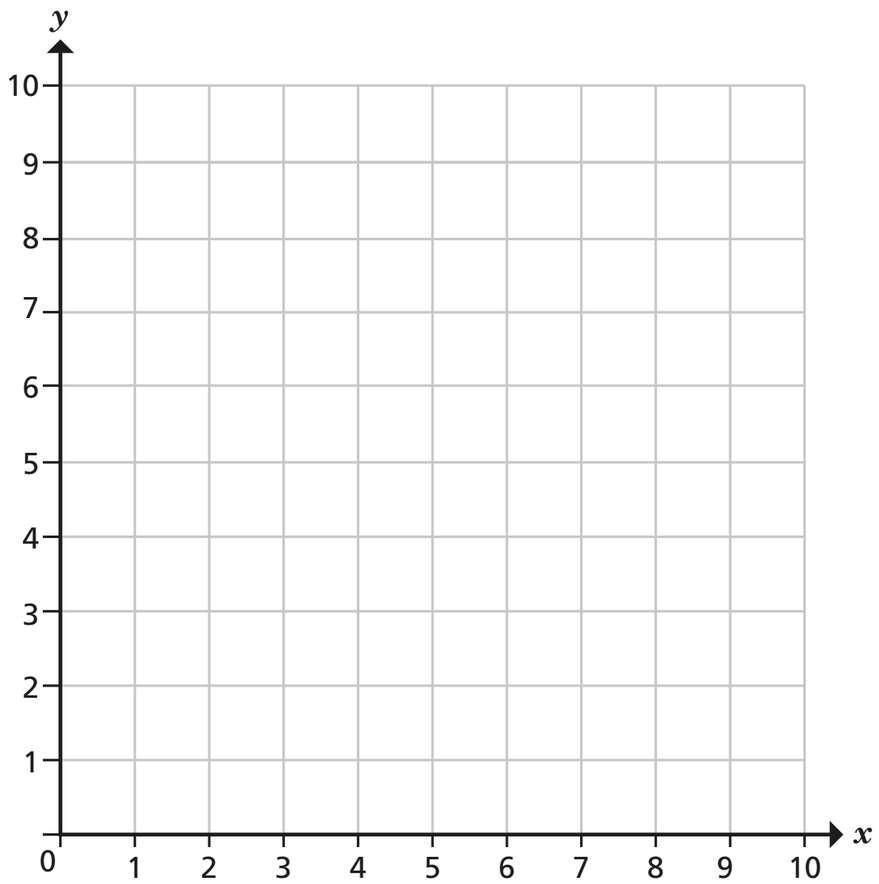
Draw on a grid

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.

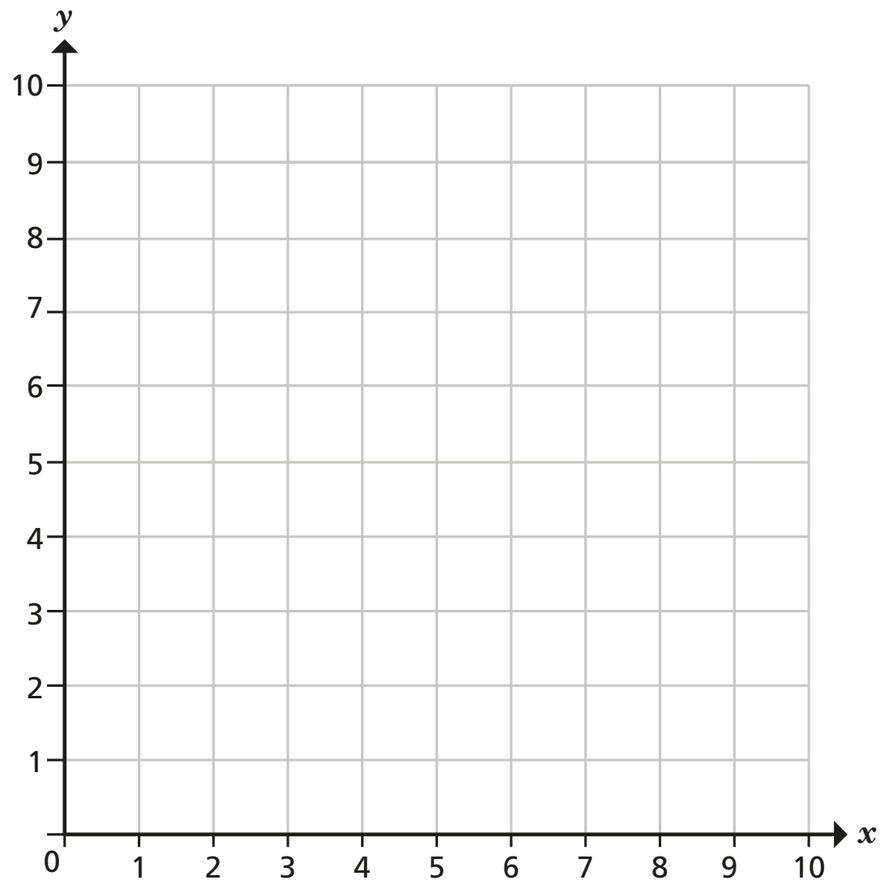


Compare answers with a partner.

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.

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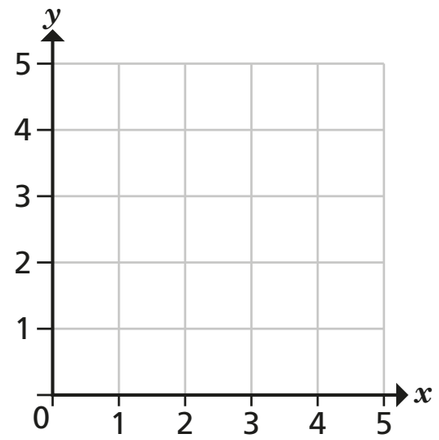
3 Here are the coordinates of the vertices of a rectangle.

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

Draw the rectangle on the grid.



4 Two squares are drawn on a grid.

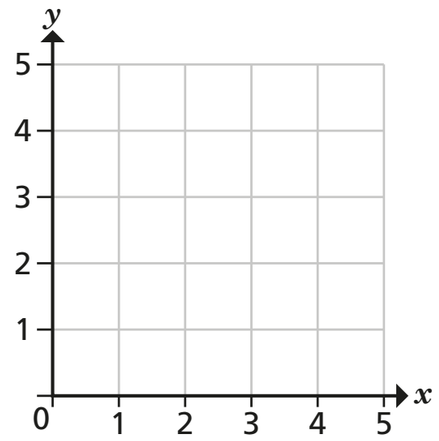
Here are the coordinates of the vertices of each square.

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

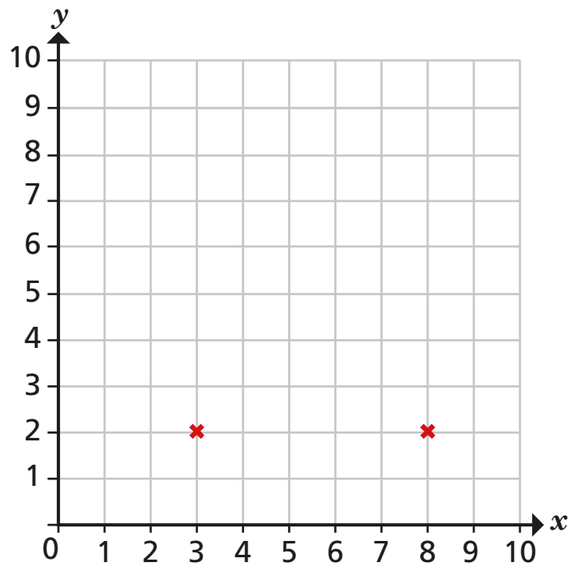
Square B (2, 2) (2, 4) (4, 4) (4, 2)

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?

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