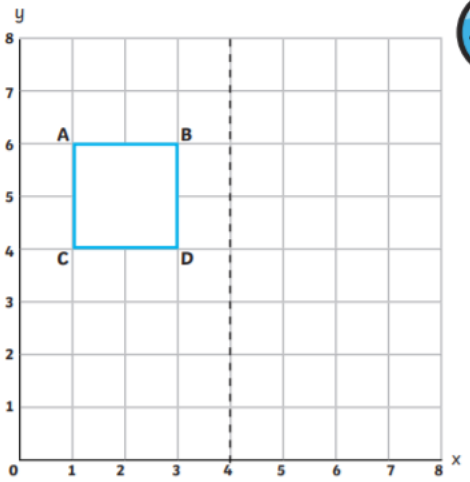
1) Jane wants to reflect the blue square in the mirror line. Draw the reflected shape, using a pencil and ruler.

2) a) What are the coordinates of the vertices of the original blue square?

A (,) **B** (,) **C** (,) **D** (,)

b) What are the coordinates of the vertices of the reflected square?

(,) (,) (,) (,)



1) Brigitte and Taylor are reflecting the triangle in the mirror line. Taylor says, 'I need a mirror to do this.' Brigitte says, 'I have a different method that doesn't need a mirror.'
What could Brigitte's method be?

_____

_____

_____

2) a) Choose a vertex of the original triangle and write down the coordinates. Now, identify the same vertex in the reflected shape and write down the coordinates What do you notice?

_____

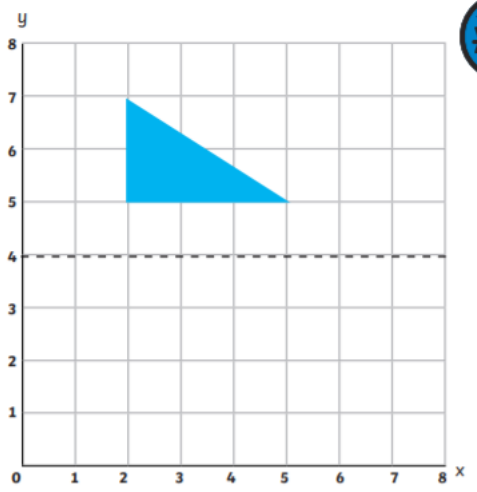
_____

_____

b) Circle the correct answer in these sentences.

When reflecting a shape in a mirror line that passes through the x-axis, the x / y coordinate will stay the same and the x / y coordinate will change.

When reflecting a shape in a mirror line that passes through the y-axis, the x / y coordinate stays the same and the x / y coordinate changes.



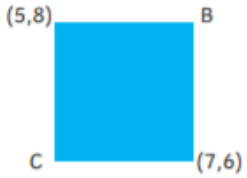
1) a) If you reflect a square in a vertical line, which coordinates will change and which will stay the same?

Why?

b) Which coordinates will change if you reflect a square in a horizontal line?

c) Investigate if this is the same for other shapes.

2) Harry has drawn a square and given the coordinates of two of the vertices.



a) Harry reflects the square in a mirror line. Looking at the reflected shape, Harry says the coordinates of vertex B are now (7,2).
Has the square been reflected in a mirror line that is parallel to the x-axis or the y-axis?
How do you know?

b) What are the coordinates of the other three vertices? Complete the table.

Original shape	Reflected shape
(5,8)	
B (,)	(7,2)
C (,)	
(7,6)	

Explain how you have worked out the missing coordinates.