Tuesday 28th April

Transformations

Reflection

Warm up

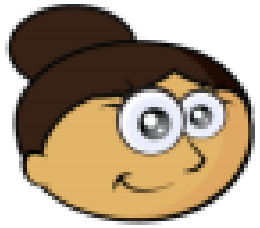
Play TTRockstars for 10 minutes

Please work on your levels in the ‘garage’ today.

Task 1

- Remind yourself of how to plot coordinates and what type of change to a shape's position a reflection is. If you need to look at yesterday's PowerPoint you can. Also if you want to watch the videos again you can.

Task 2

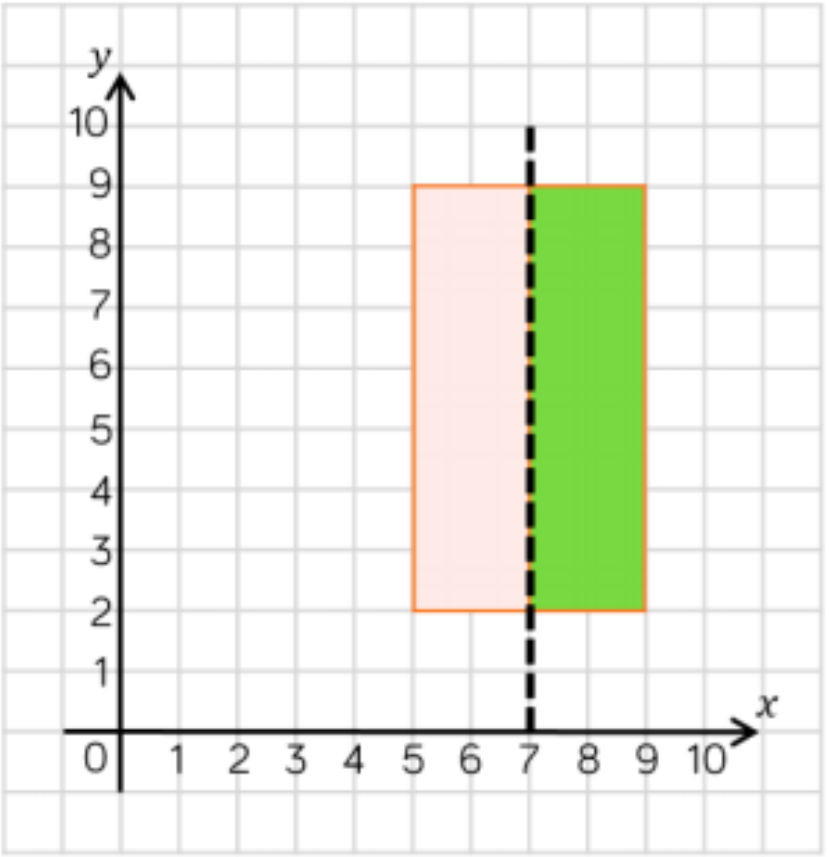


When you reflect a shape, its dimensions change.

Dora

Do you agree with Dora?
Explain your thinking.

Dimensions = a shapes length, width, height



The rectangle is pink and green.
The rectangle is reflected in the mirror line.
What would its reflection look like?

Task 2 - Answers

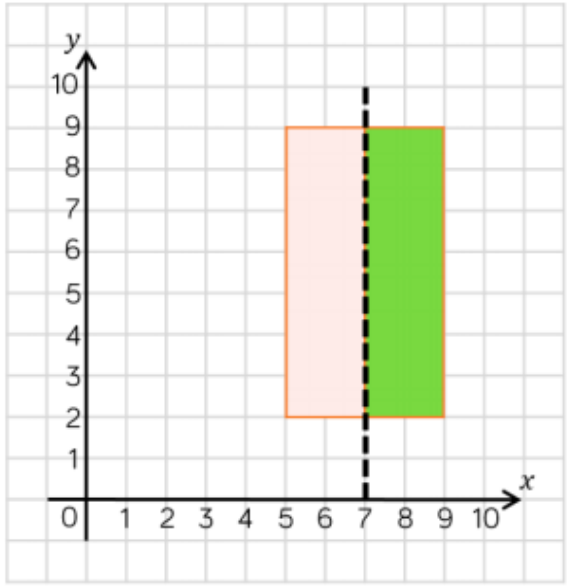


When you reflect a shape, its dimensions change.

Dora

Do you agree with Dora?
Explain your thinking.

Dora is incorrect, the shape's dimensions do not change, only its position is changed.



The rectangle is pink and green.
The rectangle is reflected in the mirror line.
What would its reflection look like?

The shape would remain in the same position, although the colours would be swapped – green on the left and pink on the right.

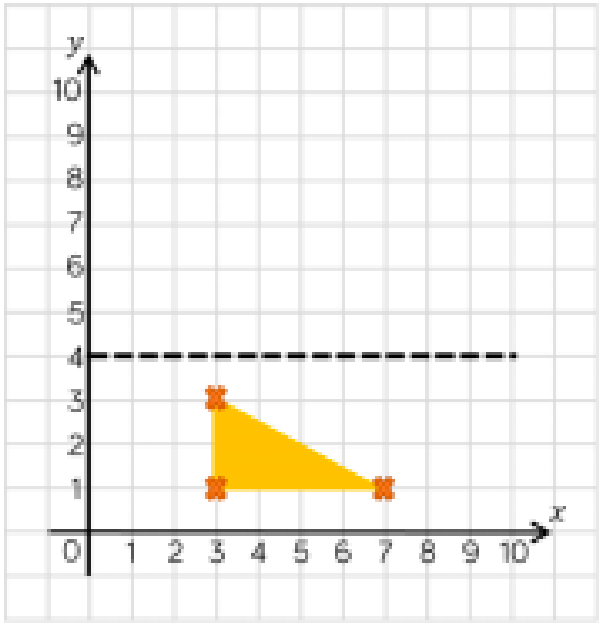
Task 3 - Q1

Write the coordinates of the image after the object (triangle) has been reflected in the mirror line.

(,)

(,)

(,)



Task 3 Q1 answers

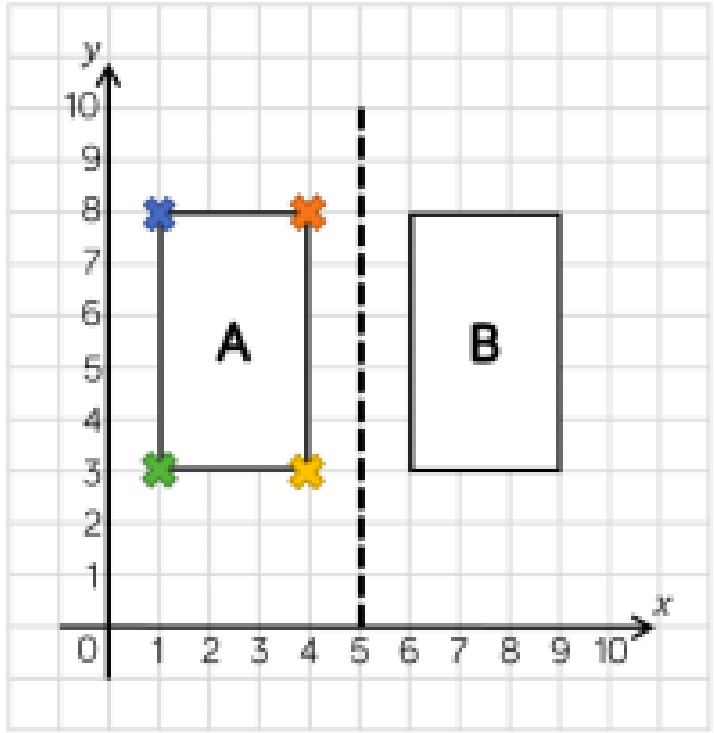
(3,5)

(3,7)

(7,7)

Task 3 – Q2

Object A is reflected in the mirror line to give image B.
Write the coordinates of the vertices for each shape.



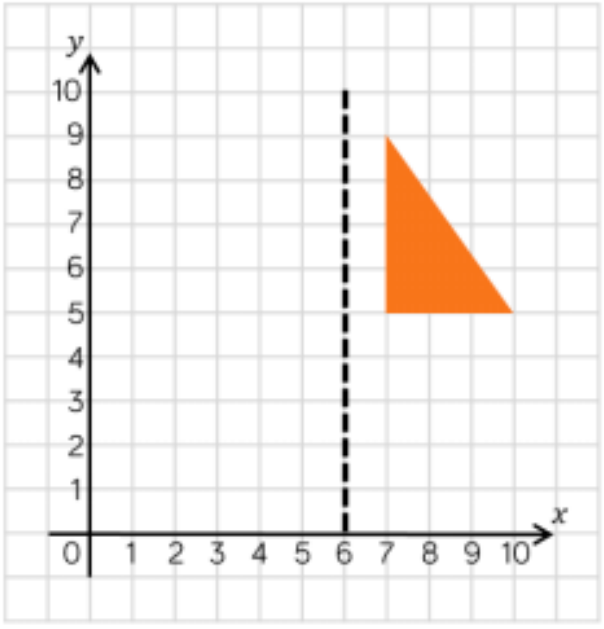
	Original Coordinate	Reflected Coordinate
✖		
✖		
✖		
✖		

Task 3 Q2 answers

	Original coordinate	Reflected coordinate
Blue cross	(1,8)	(9,8)
Red cross	(4,8)	(6,8)
Green cross	(1,3)	(9,3)
Yellow cross	(4,3)	(9,3)

Do you notice any patterns in the coordinates?
Explain the pattern.

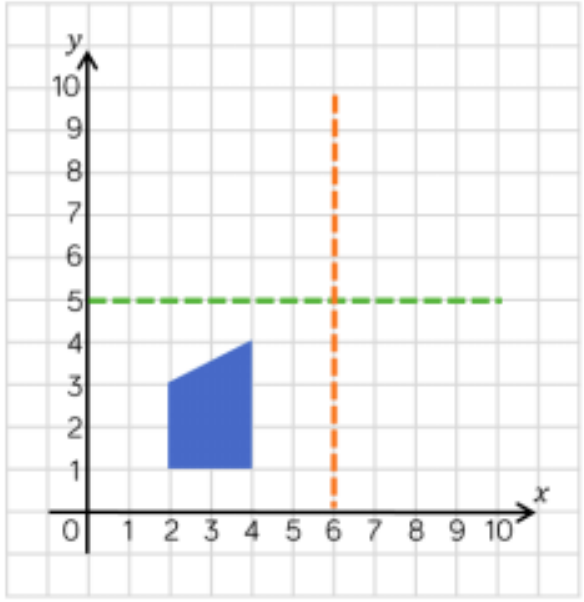
Task 4 – problem solving



Eva reflects the shape in the mirror line.
She thinks that the coordinates of the vertices for the reflected shape are:

(5, 5) (2, 5) (2, 9)

Is Eva is correct?
Explain why.

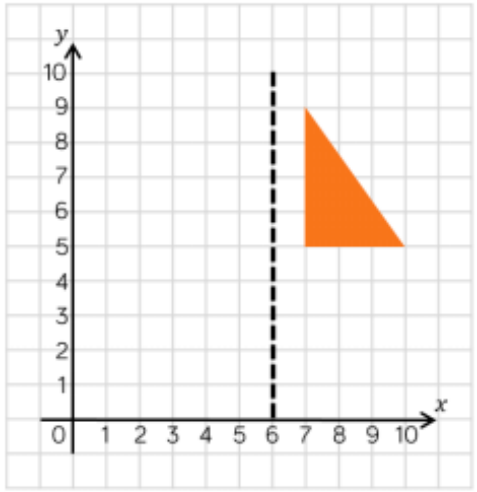


This is a shape after it has been reflected.
This is called the image.

Use the grid and the marked mirror lines to show where the original object was positioned.

Is there more than one possibility?

Task 4 answers

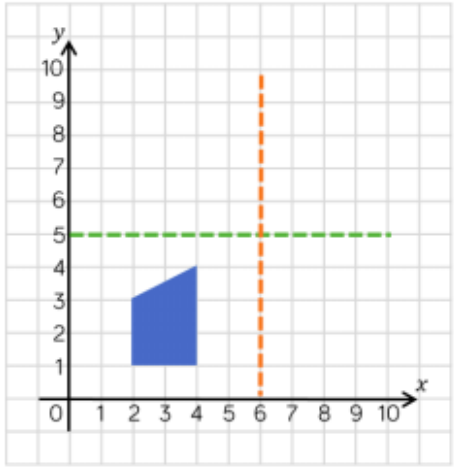


Eva reflects the shape in the mirror line.
She thinks that the coordinates of the vertices for the reflected shape are:

(5, 5) (2, 5) (2, 9)

Is Eva is correct?
Explain why.

The (2, 9) coordinate is incorrect, it should be (5, 9).



This is a shape after it has been reflected.
This is called the image.

Use the grid and the marked mirror lines to show where the original object was positioned.

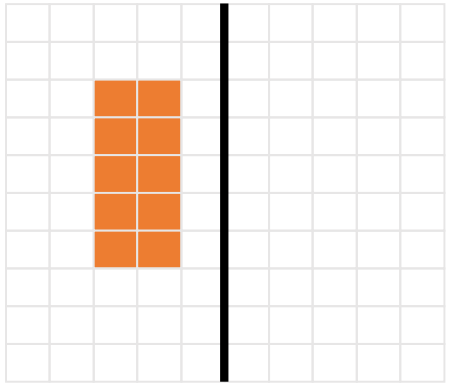
Is there more than one possibility?

There are two possibilities for the object.

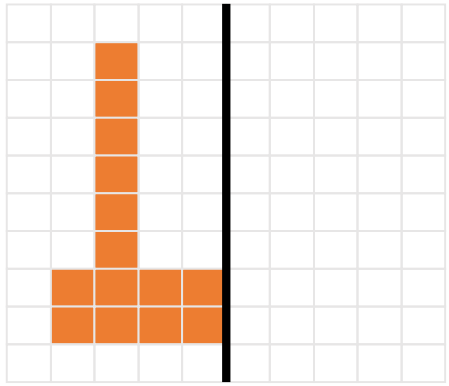
The shape could be above the green mirror line or to the right of the orange mirror line

Challenge - Reflect the shapes in the mirror lines (Q4 – 6 for HPs)

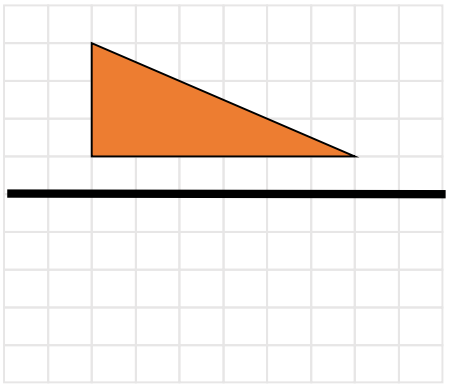
1)



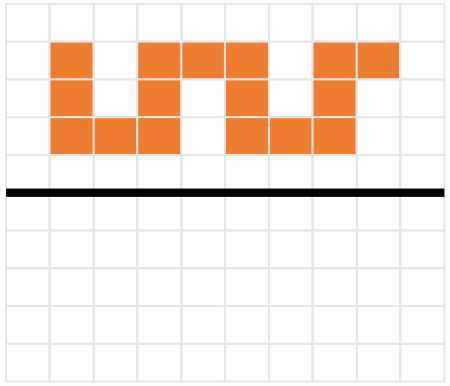
2)



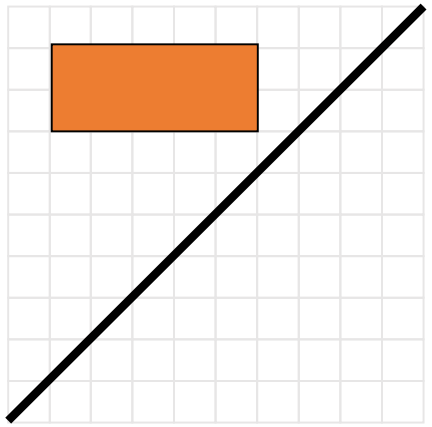
3)



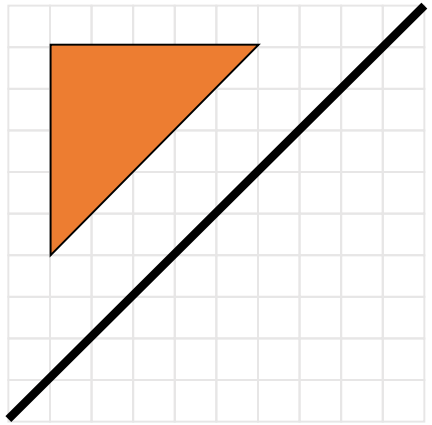
4)



5)



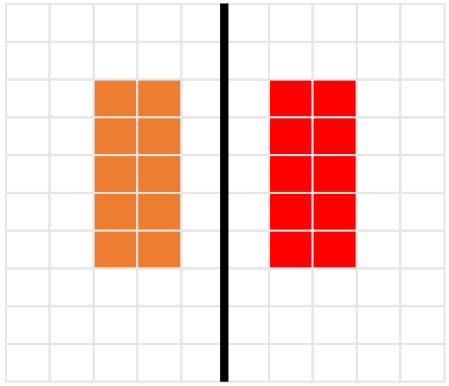
6)



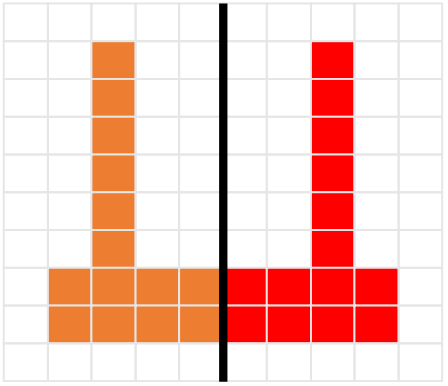
Think carefully about these two

Reflect the shapes in the mirror lines - Answers

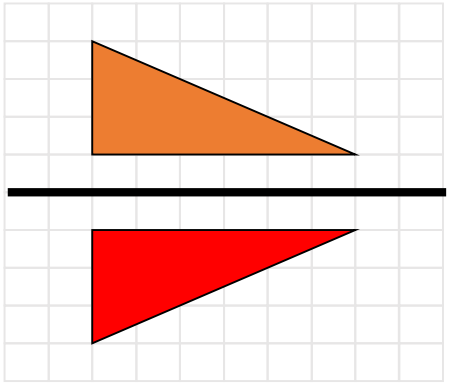
1)



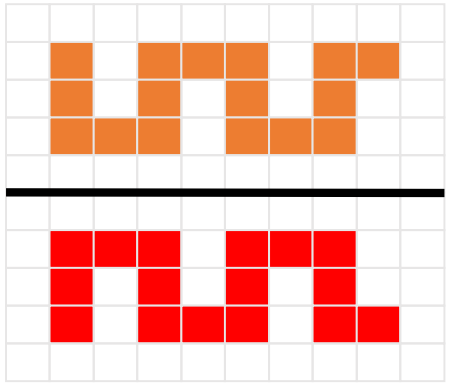
2)



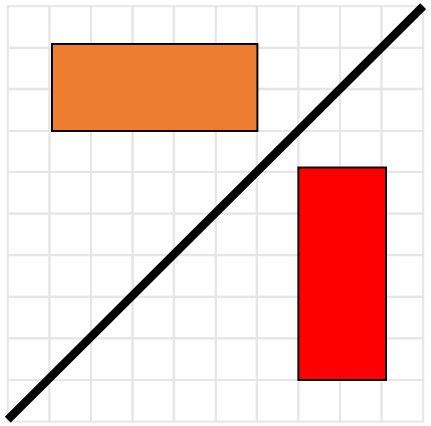
3)



4)



5)



6)

