



**What should I already know?**

- How to draw shapes in the first quadrant from given coordinates
- Identify, describe and represent the position of a shape following a reflection or translation,
- Identify, describe and represent the position of a shape following a reflection or translation
- using the appropriate language,
- know that the shape has not changed.

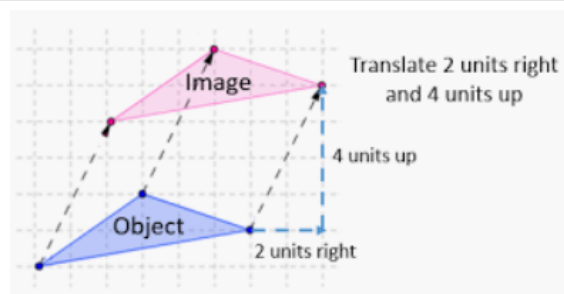
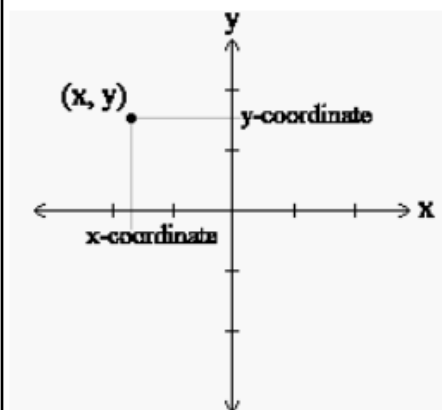
**What will I know by the end of the unit?**

- How to draw shapes in the first quadrant from given coordinates
- How to write coordinates for shapes without plotting the points
- How to read and plot coordinates in all four quadrants
- How to draw shapes in all four quadrants from given coordinates
- How to find the length of a line from the coordinates of it's two endpoints
- How to use instructions to translate shapes in all four quadrants
- How to describe translations in all four quadrants
- How to reflect shapes in the x-axis and the y-axis

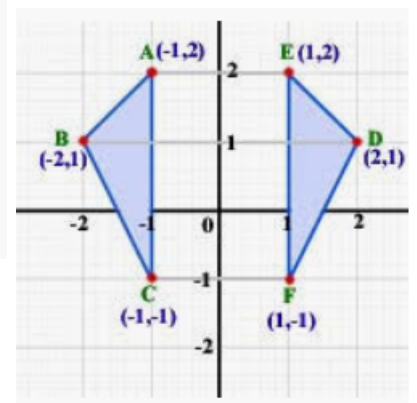
**Vocabulary**

Coordinate	Quadrant	Translated	axes
Vertices	Four quadrants	Reflection	origin
Plot	Axis	Reflected	Corresponding
positive	Negative	x-axis	Image
x-coordinate	Endpoint	y-axis	Object
y-coordinate	Translation		

**Diagram/Key Information**



Ordered Pair  
 $(x, y)$   
 ( X-value or x-coordinate , Y-value or y-coordinate )



**Investigate/Homework tasks**

- Homework will be set from the booklet issued by your teacher
- You should complete at least 30 minutes of maths tasks on Maths Whizz (not games). Please attend help sessions if you do not have access to the internet at home
- Additional work you could complete:
  - Find out more about the meaning of the vocabulary list using <http://www.amathsdictionaryforkids.com/>
- To challenge yourself: Answer the key questions to deepen your knowledge
  - Investigate the key questions typed in red text
  - Explain the key questions typed in purple text

Challenge yourself by answering the questions typed in green text

**Key skills/Timeline/Topic Questions**

When plotting coordinate pairs, which axis do we look at first?

Can you describe the coordinates of a square plotted in the first quadrant?

If (0,0) is the centre of the axis (the origin), which way do you move along the x-axis to find the negative coordinates?

If (0,0) is the centre of the axis (the origin), which way do you move along the y-axis to find the negative coordinates?

What does translation mean?

Which point are you going to look at when describing the translation?

Does each vertex of a shape translate in the same way?

How is reflecting different to translating?

Can you reflect one vertex at a time? Does this make it easier to reflect the shape?

Which axis are you going to use as the mirror line?