

Here is your scrolling Maths sequence y5 for Tuesday 19th May+ [Wed. 20th May](#)+
[Thursday 21st May](#) + [Friday 22nd May](#)

We will be investigating reflection and translation in the GEOMETRY strand of Maths

First of all search [reflection- maths is fun](#) and digest the explanation

Then search [translation primary corbett maths](#)

[Co ordinates video primary corbett maths](#)

Next, complete the pre-assessment and a section of skills:

Spring 1: Week 5: Pre-Learning Task

The pre-learning task below could be used to assess pupils' starting points within this objective. It needs to be completed by all/ or some of the pupils in advance of the main teaching.

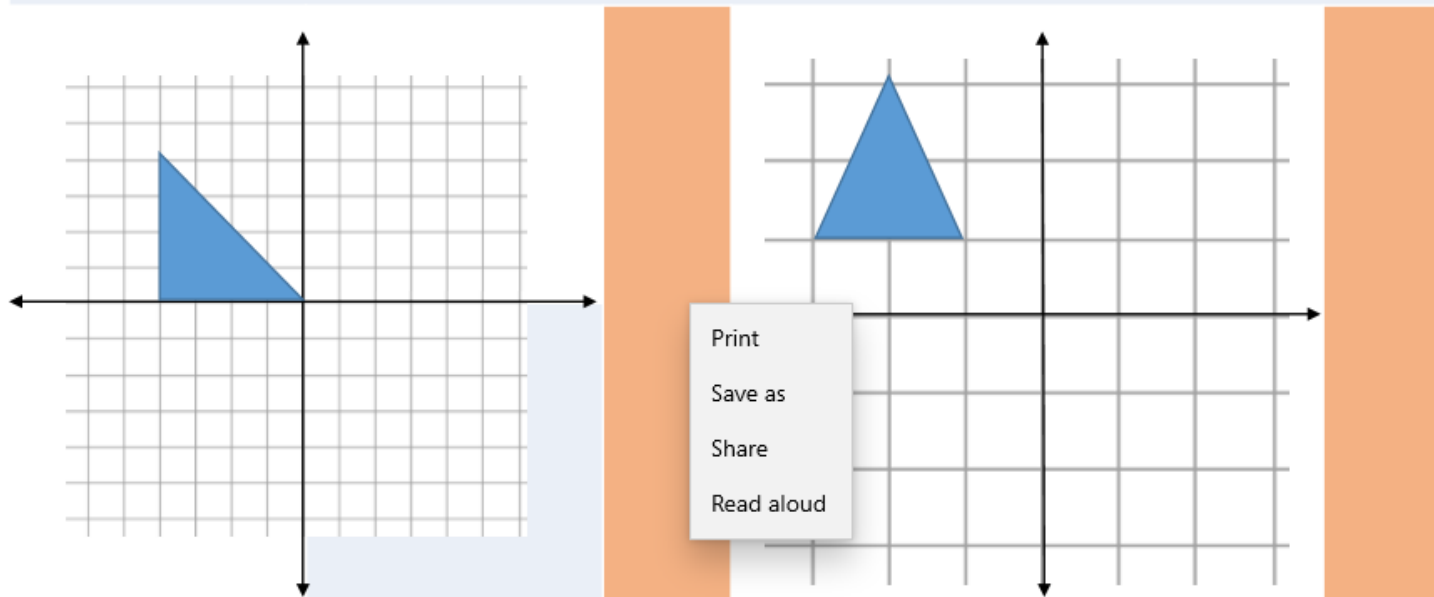
Name

Spring 1: Week 5

Objective:
Geometry

Reflection & Translation: Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language and know that the shape has not changed

Reflect the shapes shown into each of the 4 quadrants



Use squared paper and put in a horizontal and vertical axes.
On each piece of squared paper draw the following shapes:

- Rectangle;
- Triangle; and
- The letter L

Make sure the base of the shape lies on the axes.
Reflect each in turn into each of the 4 quadrants.

rectangles green triangles blue L red each time

Colour coding will help here e.g

Wed. 20th May
Continue skills:

Use squared paper putting in the same horizontal and vertical axes.
On each piece of squared paper draw the same shapes as before but this time note their positions by using numbers on the horizontal and vertical axes.
Translate each shape into another quadrant by using precise movements which can be described, eg, (2,2 to 4, 4)

So draw a rectangle, a triangle and the letter L (each in a different quadrant) with the same colour coding as yesterday but this time plot their co-ordinates.

Write sub-headings

e.g **triangle**

could be (1,1) ((2,3) (3,1) then later write another sub-heading: **translated triangle** and write new co ordinates. Watch corbett maths video again from yesterday if you need a reminder.

Next draw a new set of 4 quadrants and draw something interesting like a robot in one quadrant. Write your sub-heading: e.g **Robot** then write out the co ordinates. Now translate your drawing into another quadrant and write your new sub heading e.g **translated robot** and write the new co ordinates.

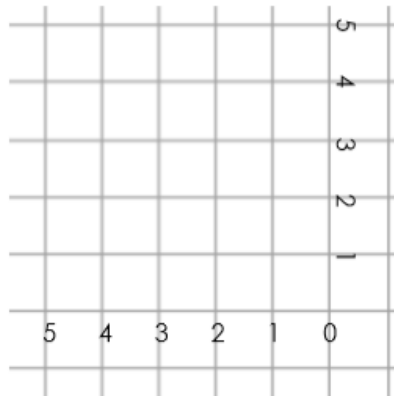
Thursday 21st May

Continue to mastery today:

Just before you begin...you know how we, Oaks love a learning song? Well, listen to this plotting co ordinates reminder and an explanation of WHICH section of your co ordinates are the 1ST QUADRANT 2ND QUADRANT 3RD QUADRANT 4TH QUADRANT.

Search for the co ordinate plane song

If pupils have mastered this objective they will be able to complete these activities independently:



Join the point (1,1) to (4,1) and then (4,1) to (4,4) and then to (1,4) before joining (1,1)

Make other shapes in the first and second quadrants by plotting the points as with the square in the example.

Now reflect each point by working out the distance from the vertical and horizontal axes.

Using the same set up as before, this time translate the square into another quadrant taking care to ensure that the movement is recorded carefully. Make sure that the size and shape are unaltered. Now plot different shapes on the first and second quadrants and reflect and translate these into other quadrants.

Make an irregular shape in the first or second quadrant by plotting each point very carefully. Don't show this to your friend but just provide them with a list of the coordinate points. See how well they can match your shape. See if you can both translate or reflect your shape.

Put the following shapes into the first or second quadrant and then reflect and translate them into the other quadrants.



Friday 22nd May

Now it's time for greater depth:

If you need any reminders, watch the videos again from this week.

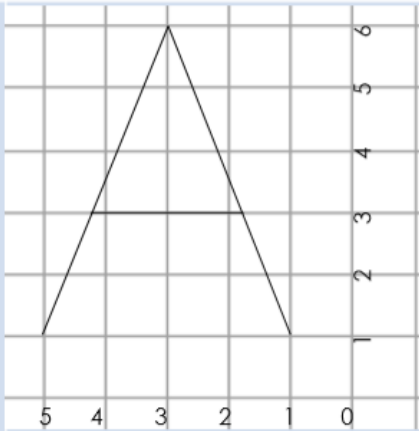
Spring 1: Week 5: Working at greater depth

Geometry: Reflection & Translation: Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language and know that the shape has not changed

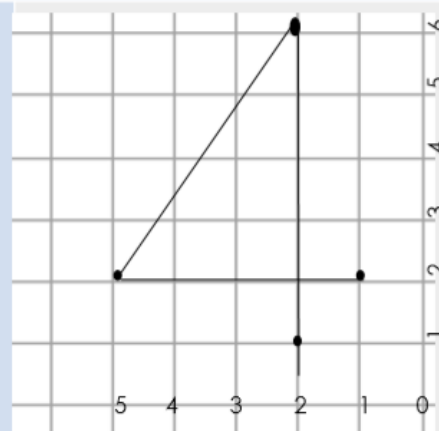
Teaching Sequence

- Reflect a shape and re-plot
- Translate a shape and re-plot
- Describe the properties of the reflected and/or translated shape – evidencing that the shape and size has not changed

Activities for pupils working at greater depth:



Starting with the letter A, plot letters of the alphabet on to the first or second quadrant and then reflect them into the other quadrants taking account of the distance from the vertical and horizontal axes. Use only letters that have straight lines: A E F H I K L M N T V W X Y Z



Using the numbers 4 and 7 plot each onto the first or second quadrant as shown with the number 4 above – record the points and then translate the number into another quadrant taking careful note of the movements made. Now choose 4 letters from the alphabet to do the same with.

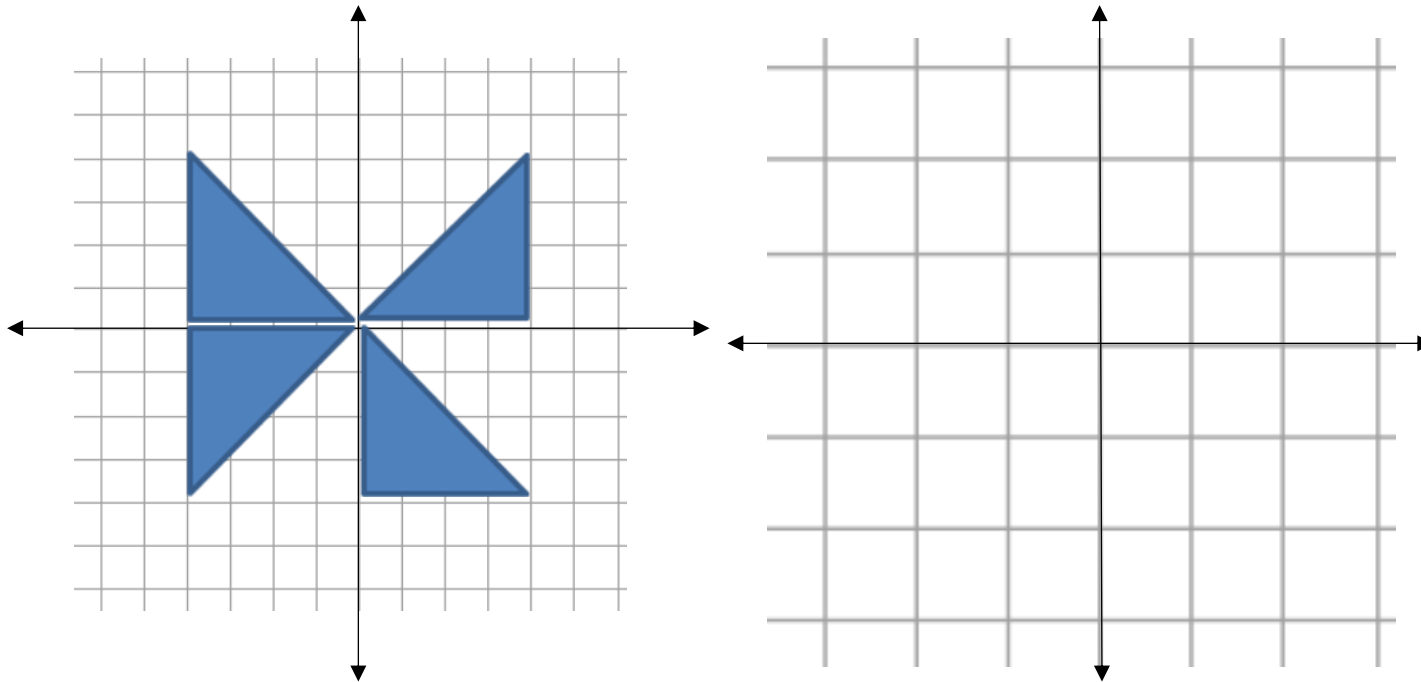
scroll down for

answers.....

Focus Maths Answers Year 5
Spring Term 1 Week 5

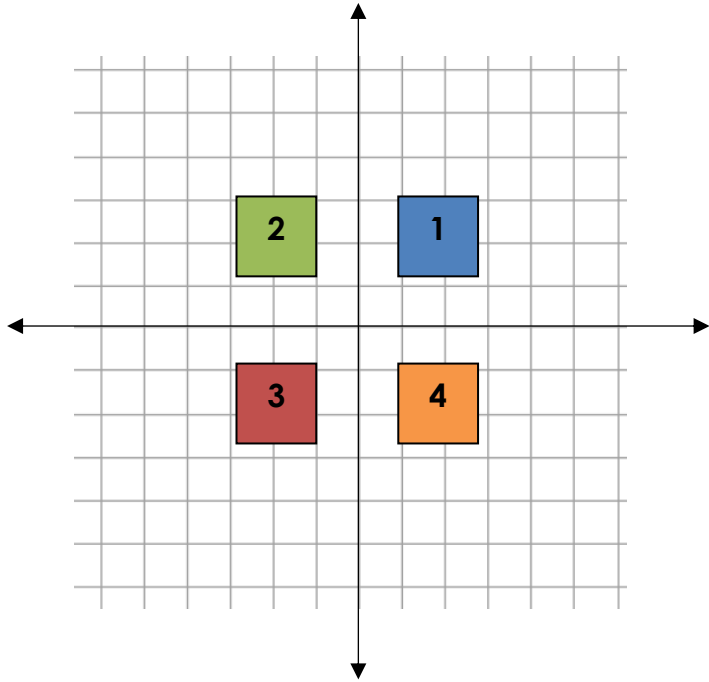
Page 103 Pre-Learning Task

Reflect the shapes shown into each of the 4 quadrants



Page 104 Practice and Consolidation

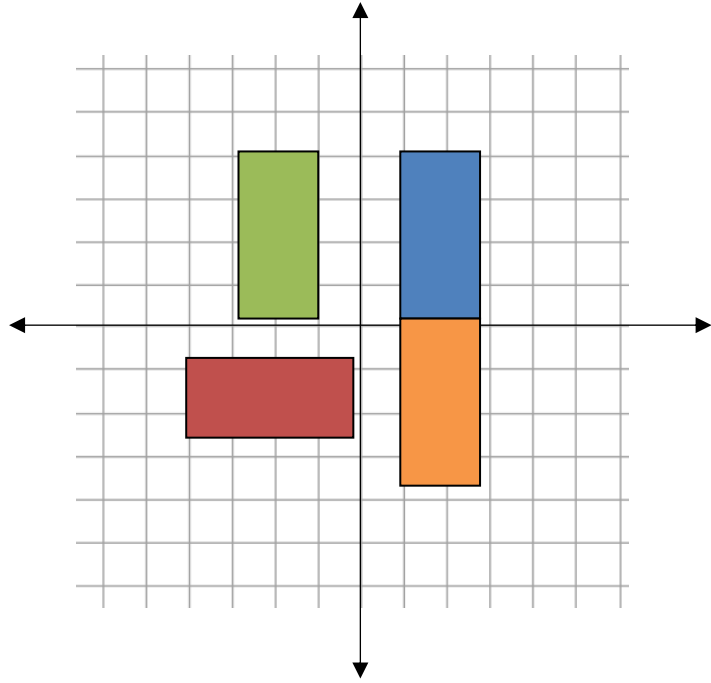
Use squared paper and put in a horizontal and vertical axes. Create the four quadrants: Number the coordinates and then colour a square in quadrant one and reflect it to quadrant 2, 3 and 4.



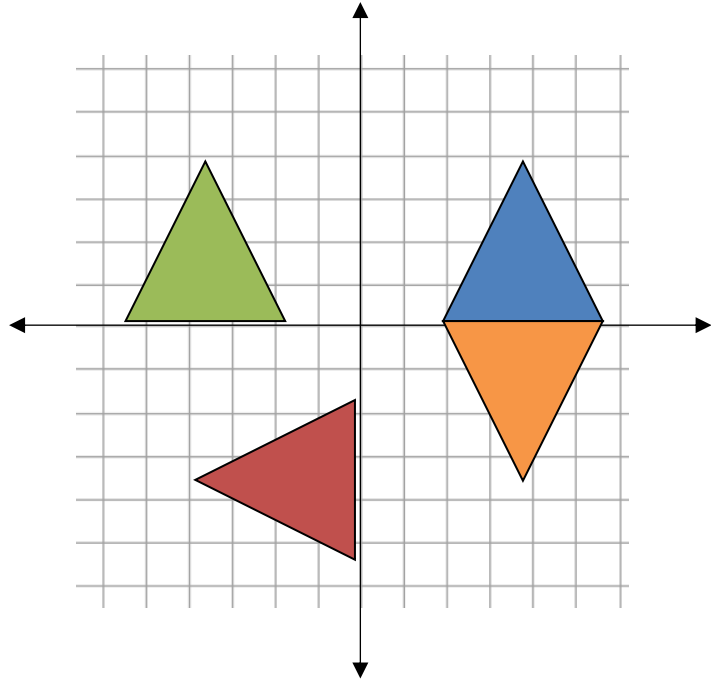
Use squared paper and put in a horizontal and vertical axes. On each piece of squared paper draw the following shapes: Rectangle; Triangle; The letter L.

Make sure the base of the shape lies on the axes. Reflect each in turn into each of the 4 quadrants.

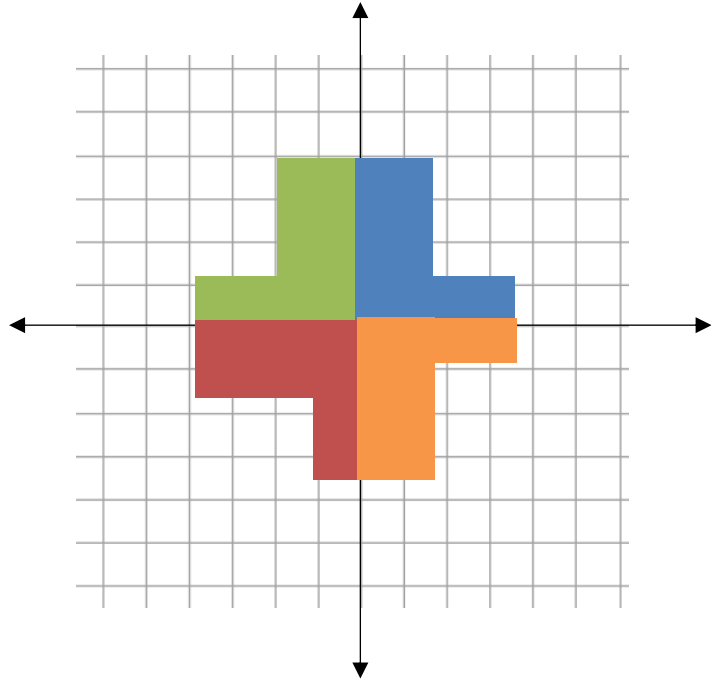
Rectangle



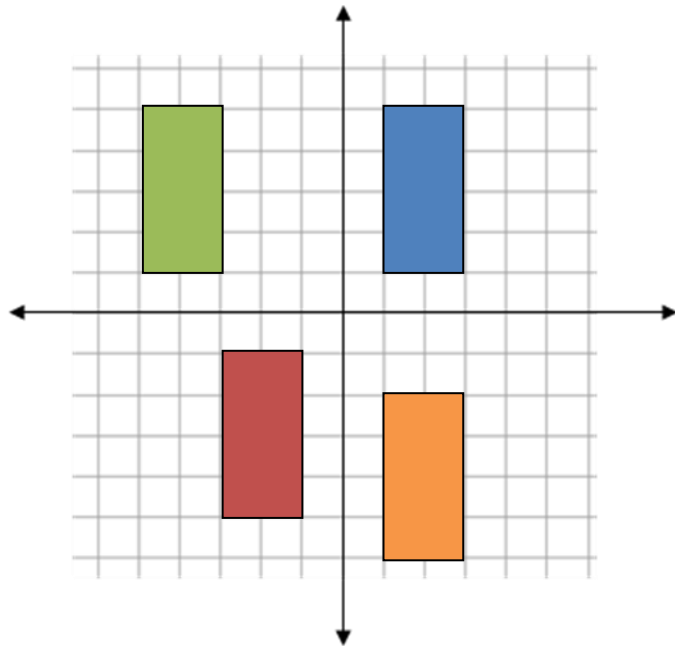
Triangle



L-Shape



Use squared paper putting in the same horizontal and vertical axes. On each piece of squared paper draw the same shapes as before but this time note their positions by using numbers on the horizontal and vertical axes. Translate each shape into another quadrant by using precise movements which can be described, e.g. (2, 2 to 4, 4). **Multiple options, rectangle e.g.:**



Original

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

(3,1) to (-3,1)

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

(3,5) to (-1,-1)

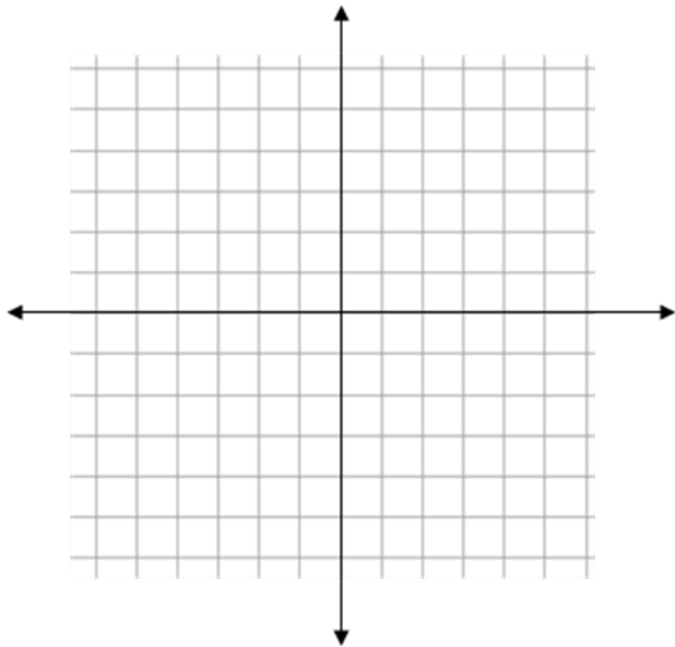
(-3,-1), (-1,-1), (-3,-5), (-1,-5)

(1,1) to (1,-6)

(1,-6), (3,-6), (1,-2), (3,-2)

Page 105 Mastering this Objective

Join the point (1,1) to (4,1) and then (4,1) to (4,4) and then to (1,4) before joining (1,1). Make other shapes in the first and second quadrants by plotting the points as with the square in the example. Now reflect each point by working out the distance from the vertical and horizontal axes. **Multiple options, square e.g.:**

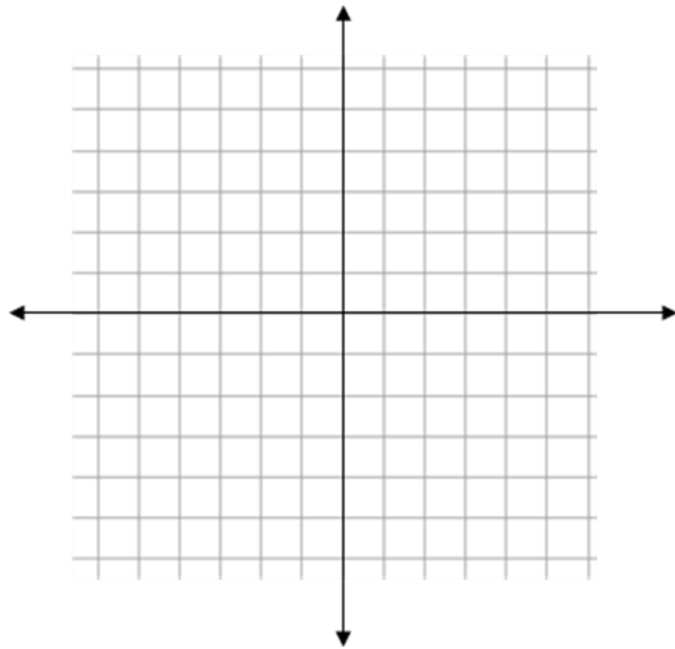


Original
 $(1,1), (4,1), (4,4), (1,4)$

Reflection in X
 $(1,-1), (4,-1), (4,-4), (1,-4)$

Reflection in Y
 $(-1,1), (-4,1), (-4,4), (-1,4)$

Using the same set up as before, this time translate the square into another quadrant taking care to ensure that the movement is recorded carefully. Make sure that the size and shape are unaltered. Now plot different shapes on the first and second quadrants and reflect and translate these into other quadrants. **Multiple options, square e.g.:**



Original
 $(1,1), (4,1), (4,4), (1,4)$

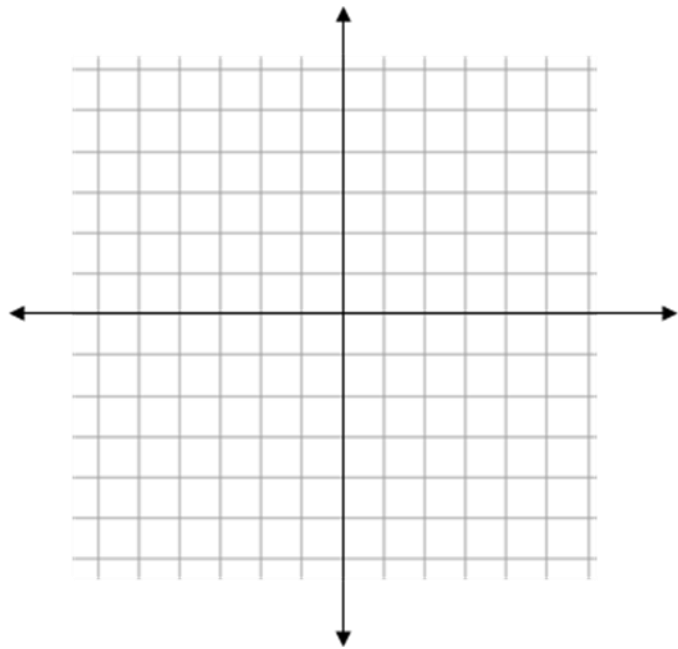
Translation $(-5,-1)$
 $(-4,0), (-1,0), (-1,3), (-4,3)$

Translation $(+1,-6)$
 $(2,-5), (5,-5), (5,-2), (2,-2)$

Practical Task

Put the following shapes into the first or second quadrant and then reflect and translate them into the other quadrants.

E.g.



Original
 $(-1,1), (-3,1), (0,2), (-1,3), (-3,3)$

Translation $(+6,-1)$
 $(5,0), (3,0), (6,1), (5,2), (3,2)$

Translation $(-3,-4)$
 $(-4,-3), (-6,-3), (-3,-2), (-4,-1),$
 $(-6,-1)$

Translation $(+4,-5)$
 $(3,-4), (1,-4), (4,-3), (3,-2),$
 $(1,-2)$

Page 106 Working at greater depth

Practical Tasks- Plotting points, reflecting and translating shapes