**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Maths Specialist - Investigation**

**Matrix Transformations**

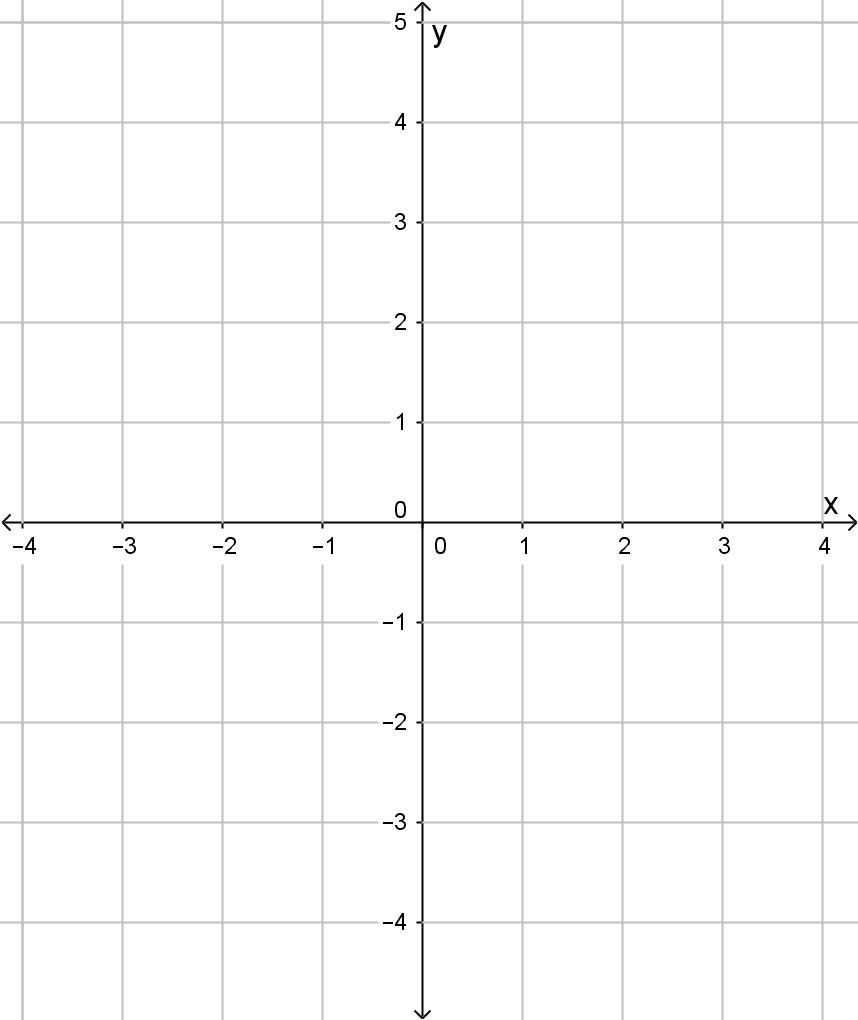
**Investigation Part 2:** **Validation Test**

Time: 45 minutes Marks\_\_\_\_\_\_\_/44

The points and are represented by the matrix .

[6 marks]

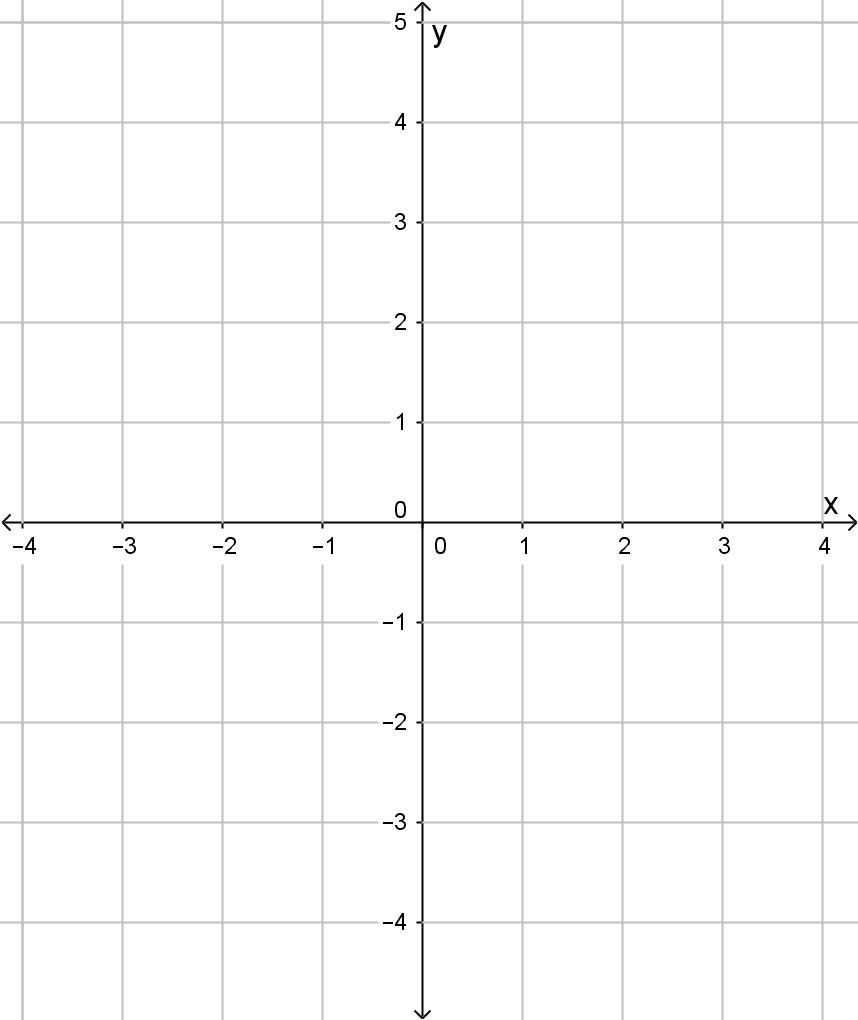
* 1. Show how to transform to using the matrix .
  2. On the grid below draw a labelled diagram of the quadrilaterals and .



* 1. Describe the transformation.

[6 marks]

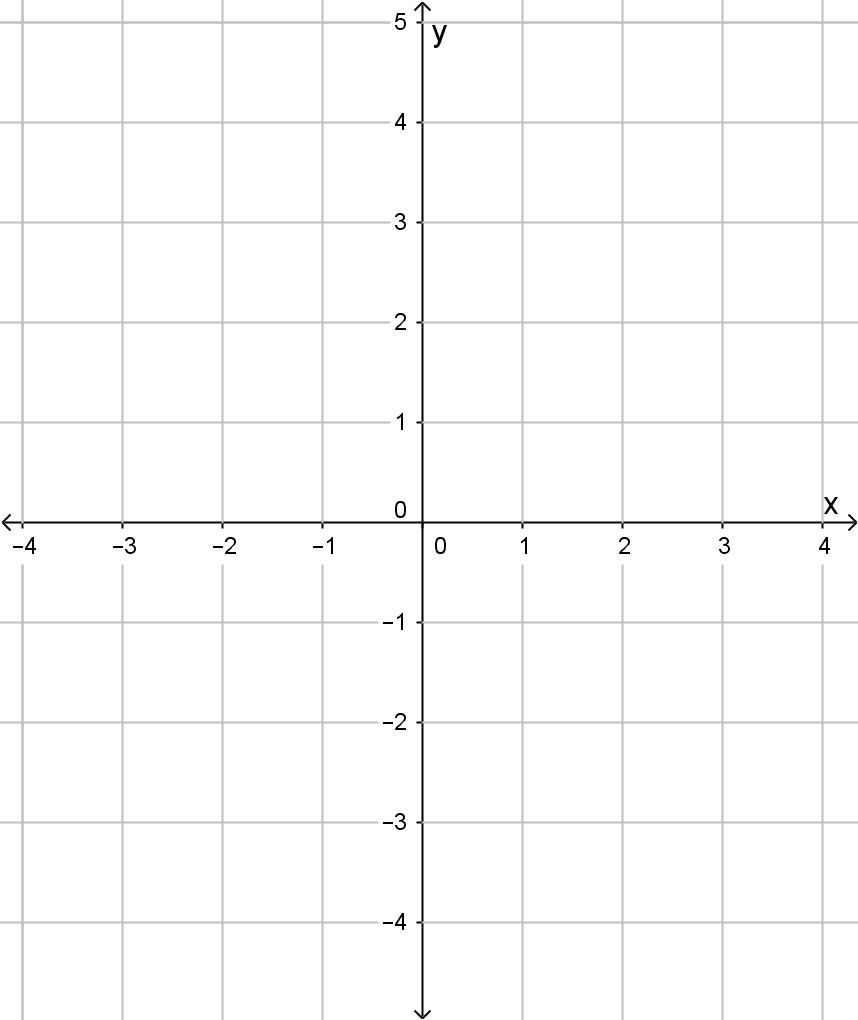
* 1. Show how to transform to using the matrix .
  2. On the grid below draw a labelled diagram of the quadrilaterals and .



c) Describe the transformation.

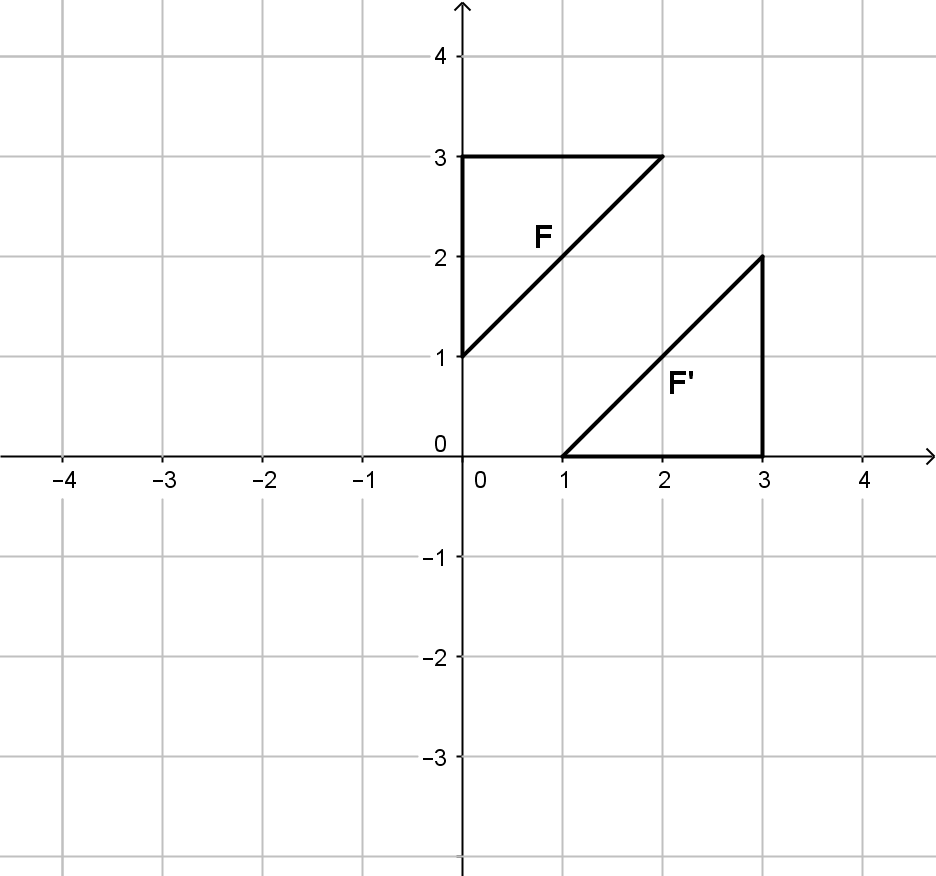
[6 marks]

* 1. Show how to transform to using the matrix .
  2. On the grid below draw a labelled diagram of the quadrilaterals and .



c) Describe the transformation.

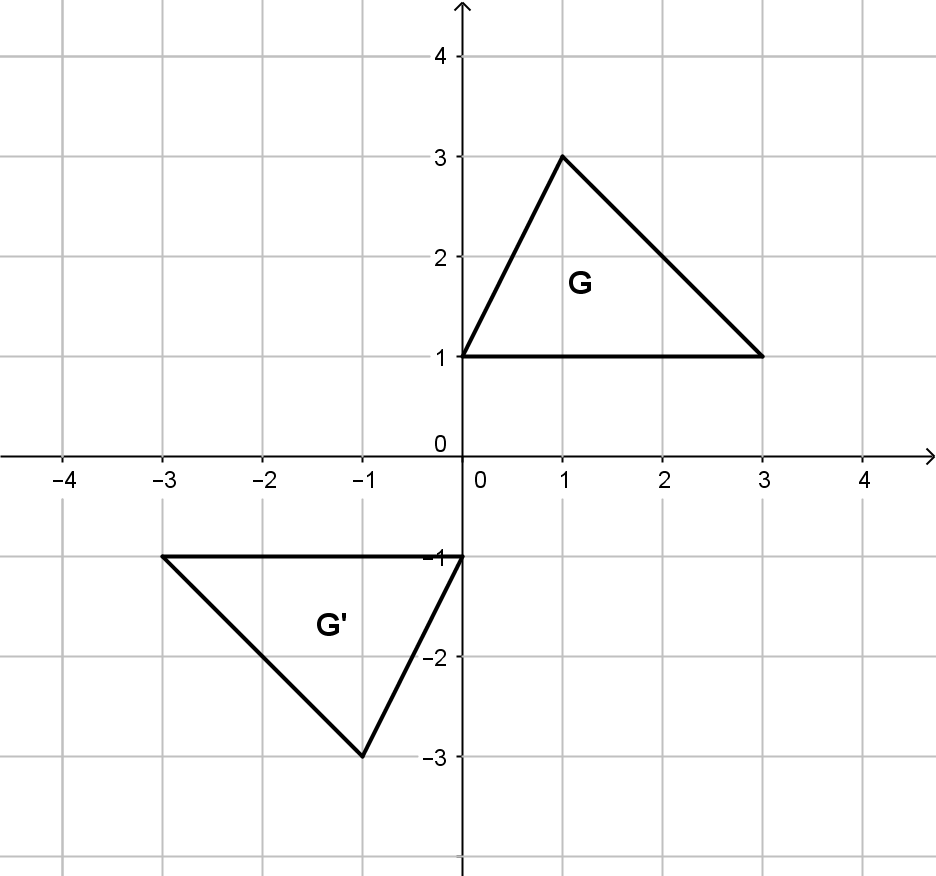
[4 marks]



Triangle F has been transformed onto F’.

1. Describe the transformation.
2. Which matrix would produce this transformation?

[4 marks]



Triangle G has been transformed onto G’.

1. Describe the transformation.
2. Which matrix would produce this transformation?
3. Triangle to transformed on to triangle by the matrix . [4 marks]
   1. Describe the transformation.
   2. If the area of triangle is 3 square units. What is the area of triangle ? Justify your answer.
4. Triangle to transformed on to triangle by the matrix . [4 marks]
   1. Describe the transformation.
   2. If the area of triangle is 6 square units. What is the area of triangle ? Justify your answer.
5. Triangle to transformed on to triangle by the matrix . [5 marks]
   1. Describe the transformation.
   2. How would the area of triangle compare with the area of triangle PQR? Justify your answer.
6. Matrix **A** is a matrix and transforms to . Find matrix **A**.

[5 marks]