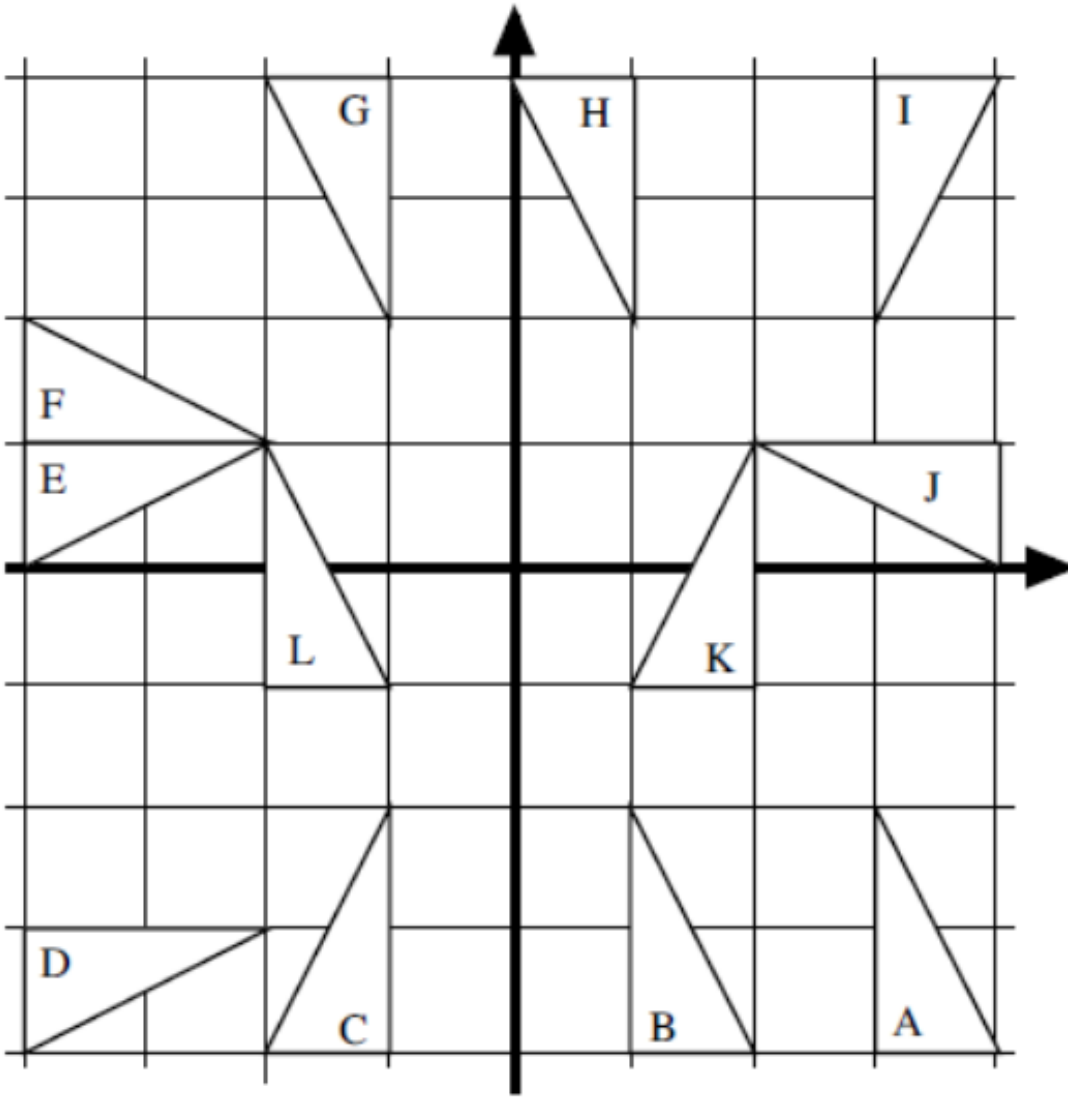
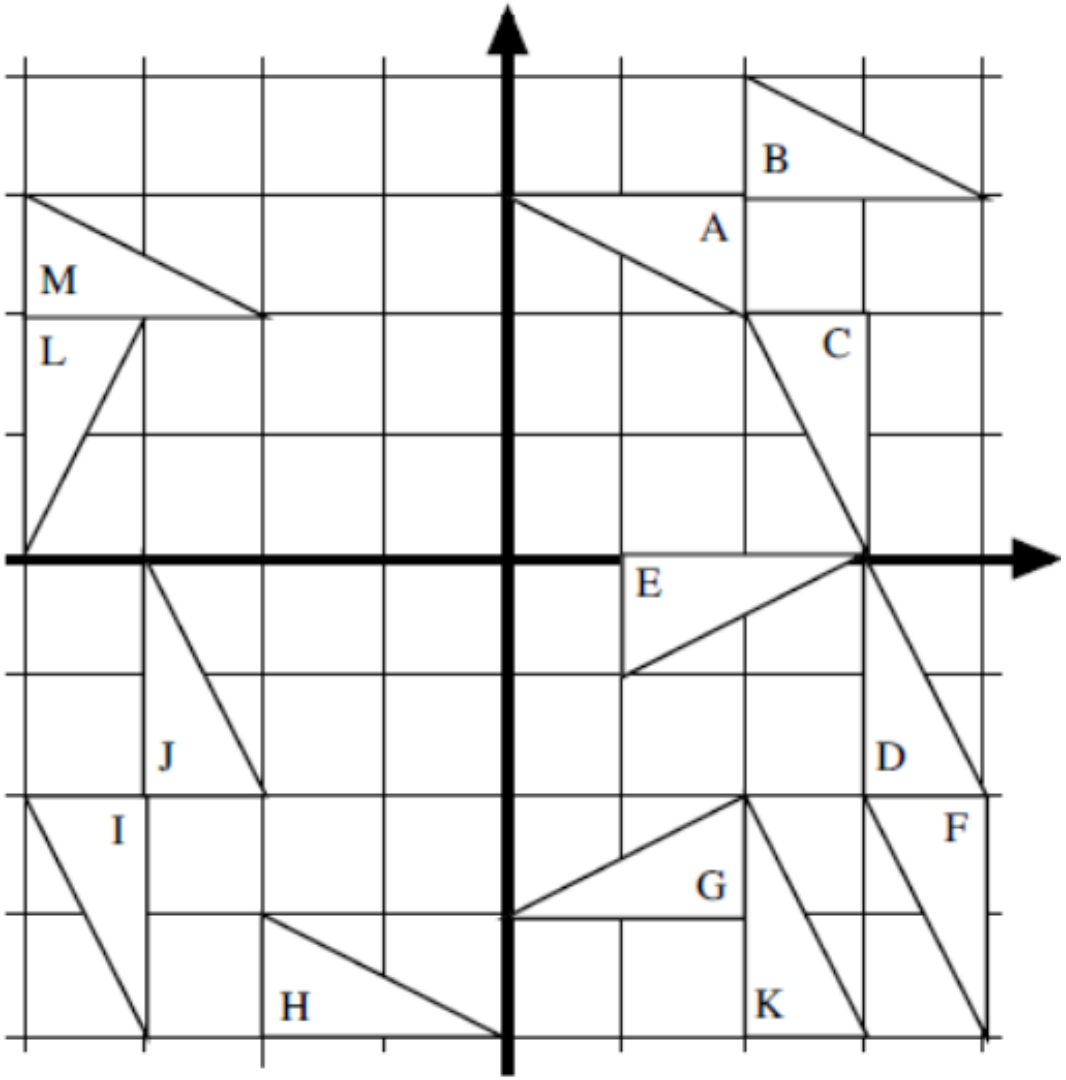
1) Describe fully the **single** transformation that maps



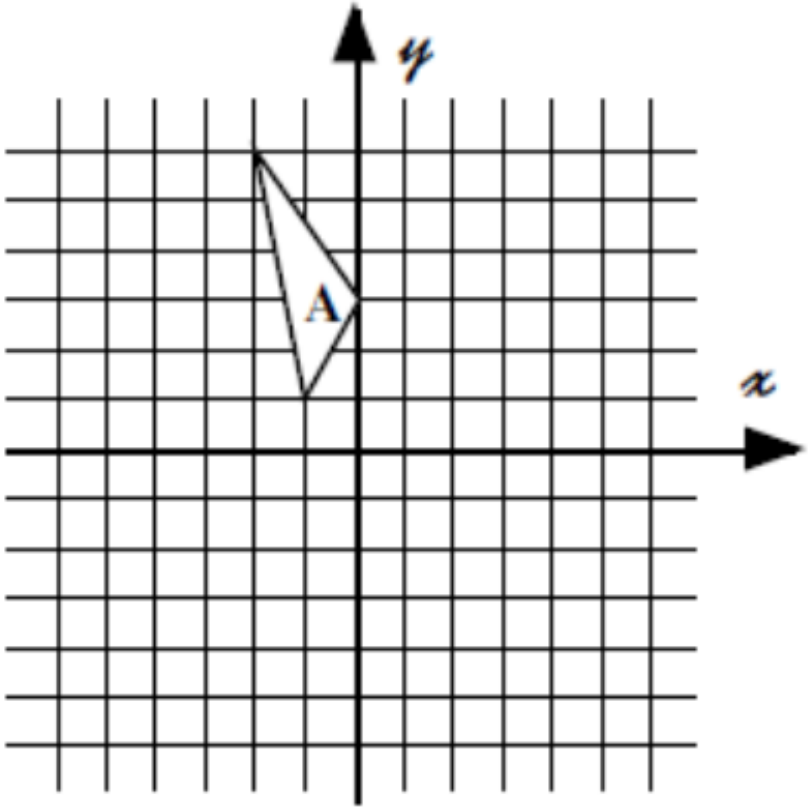
a) H on to G,
b) H on to J,
c) B on to A
d) G on to B
e) E on to F,
f) C on to K,

2) Describe fully the **single** transformation that maps



a) H on to M,
b) A on to C,
c) L on to M,
d) D on to K,
e) C on to F,
f) I on to J,

3) Copy the diagram into your notebook

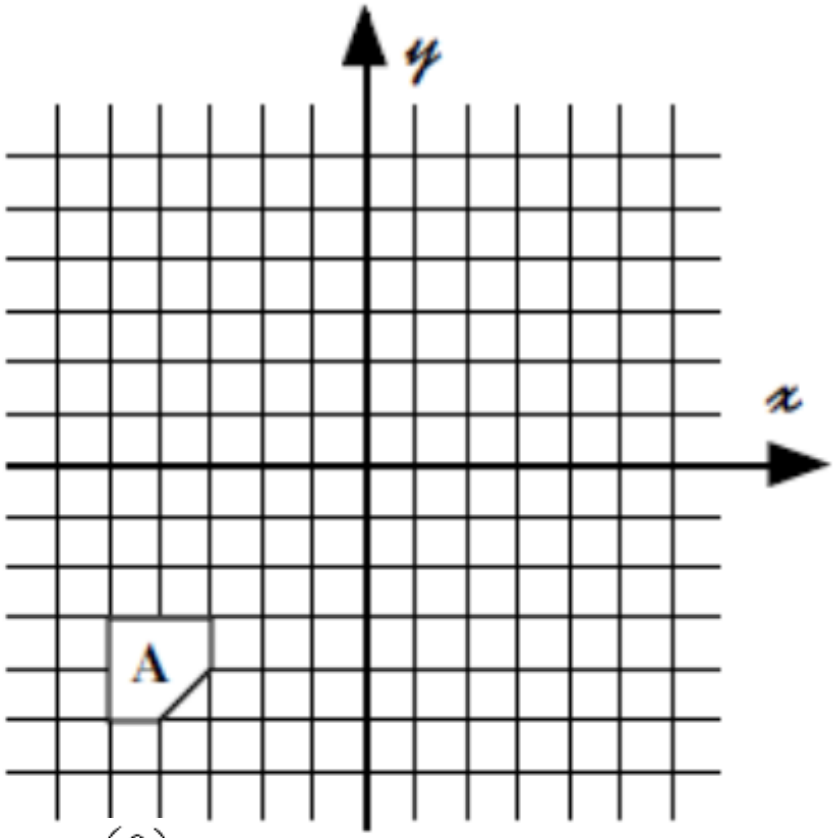


a) Reflect triangle A in the y-axis. Label it B.

b) Translate triangle A $\begin{pmatrix} 5 \\ -5 \end{pmatrix}$. Label it C.

c) Rotate triangle A 90° anti-clockwise at (-3,-1). Label it D

4) Copy the diagram into



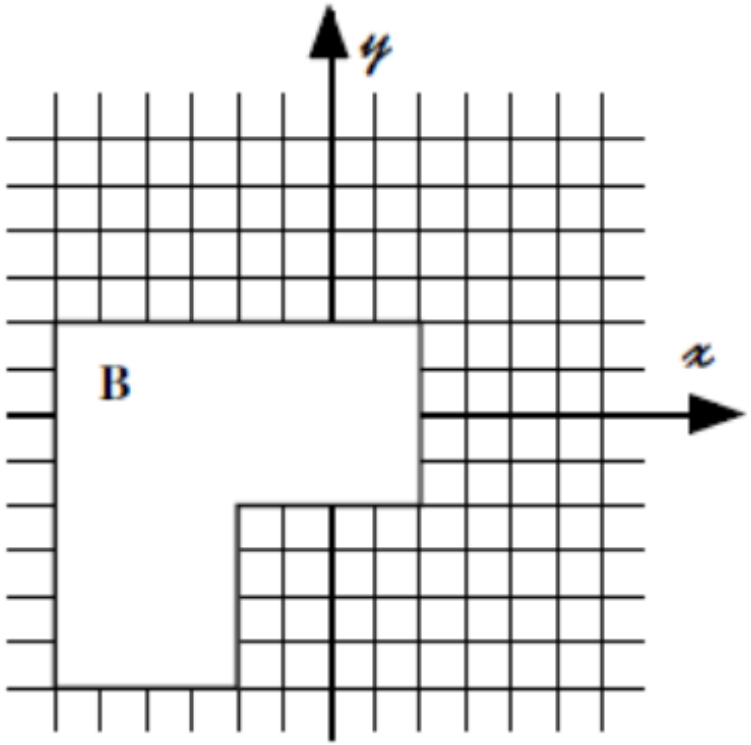
a) Translate pentagon A $\begin{pmatrix} 0 \\ 6 \end{pmatrix}$. Label it B.

b) Reflect pentagon A in the line x = -1. Label it C.

c) Rotate pentagon A 180° at (0,-1). Label it D

d) Dilate pentagon A with a scale factor 4 at (-6,-6). Label it E

5) Copy the diagram into your notebook

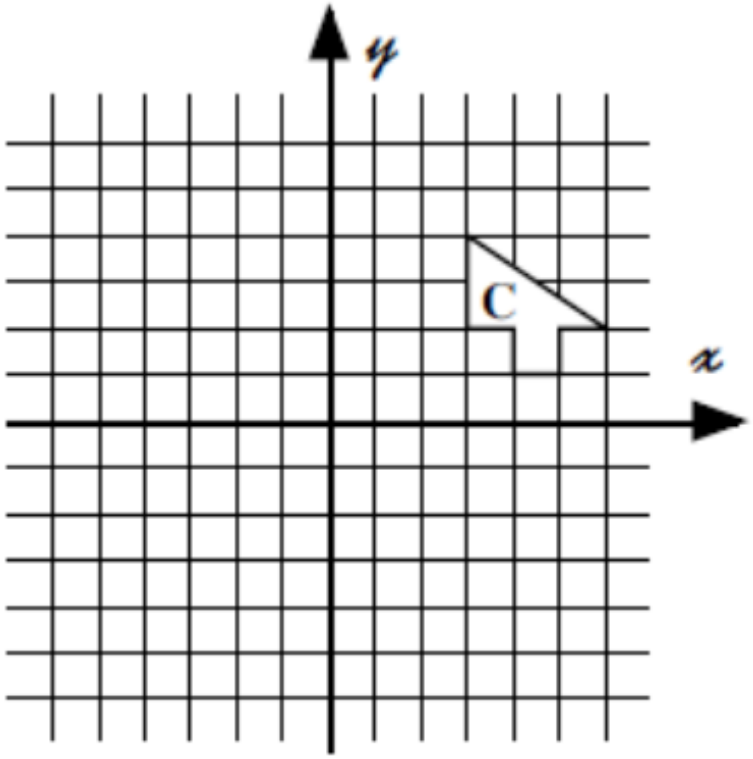


a) Dilate shape B by a scale factor of $\frac{1}{4}$ at (6,6). Label it C.

b) Reflect shape B in the line x axis. Label it D.

c) Translate shape B $\begin{pmatrix} 4 \\ 1 \end{pmatrix}$. Label it E.

6) Copy the diagram into your notebook



a) Rotate shape C 270° clockwise at the origin. Label it D.

b) Reflect shape C in the line y = -x. Label it E.

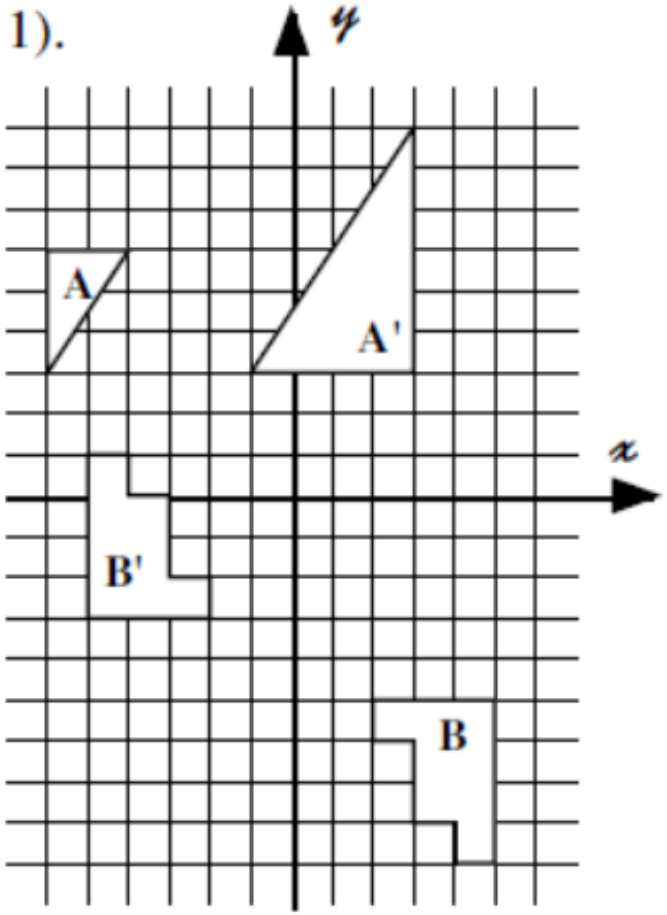
c) Dilate shape C with a scale factor 2 at point (5,6). Label it F.

7)

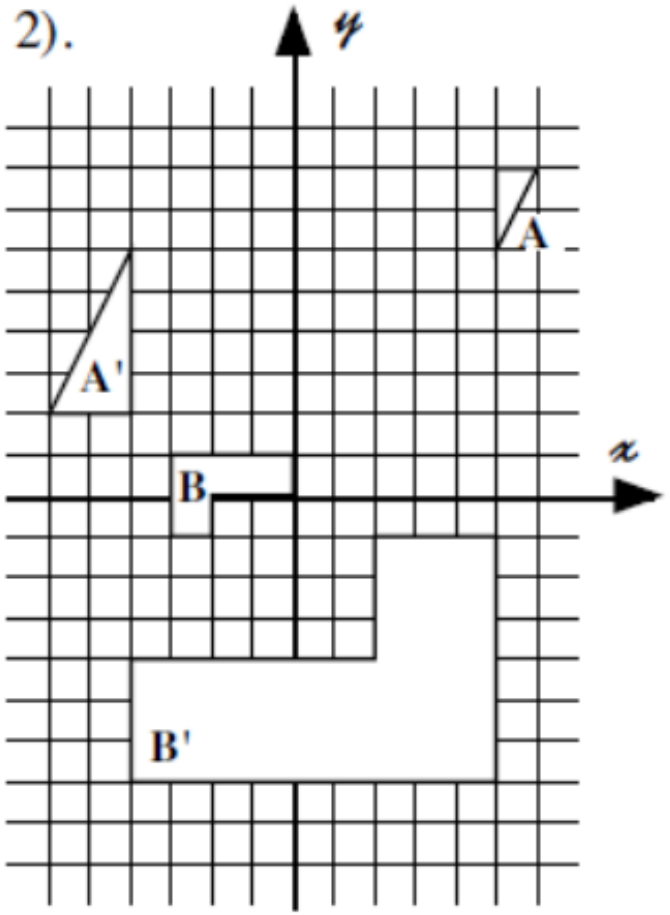
Negative Scale Factors.

Copy the following diagrams on to squared paper.
You should be able to fit 2 questions on one side of A4.
Write the **scale factor** and **centre of enlargement** that describes the enlargements A to A' and B to B' for each question.

1).



2).

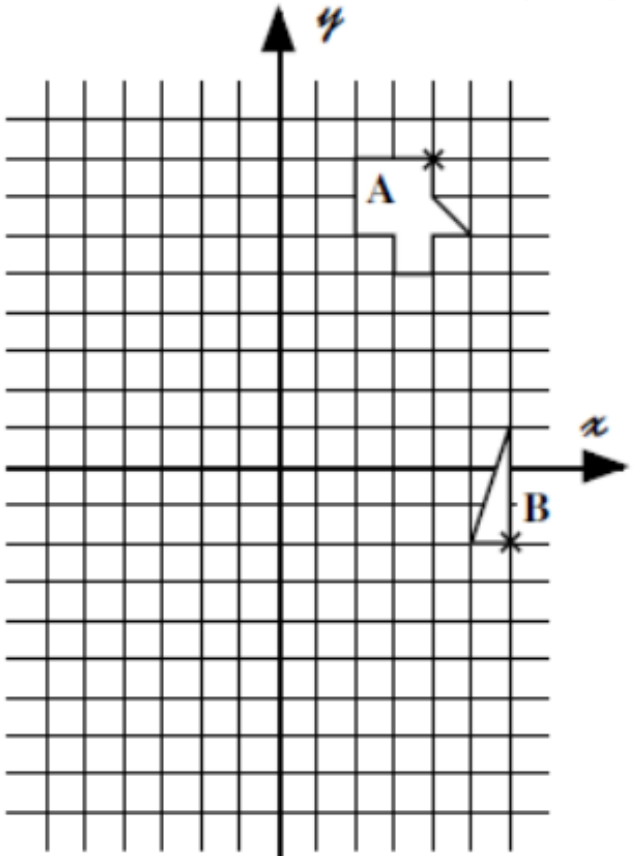


8)

Negative Scale Factors.

Put each shape through the enlargement described.
Write the coordinate of the point x **after** each enlargement.

1).
A- Scale factor -1 about (0,6)
B- Scale factor -3 about (3,-1)



2).
A- Scale factor -2 about (-2,7)
B- Scale factor -3 about (4,-5)