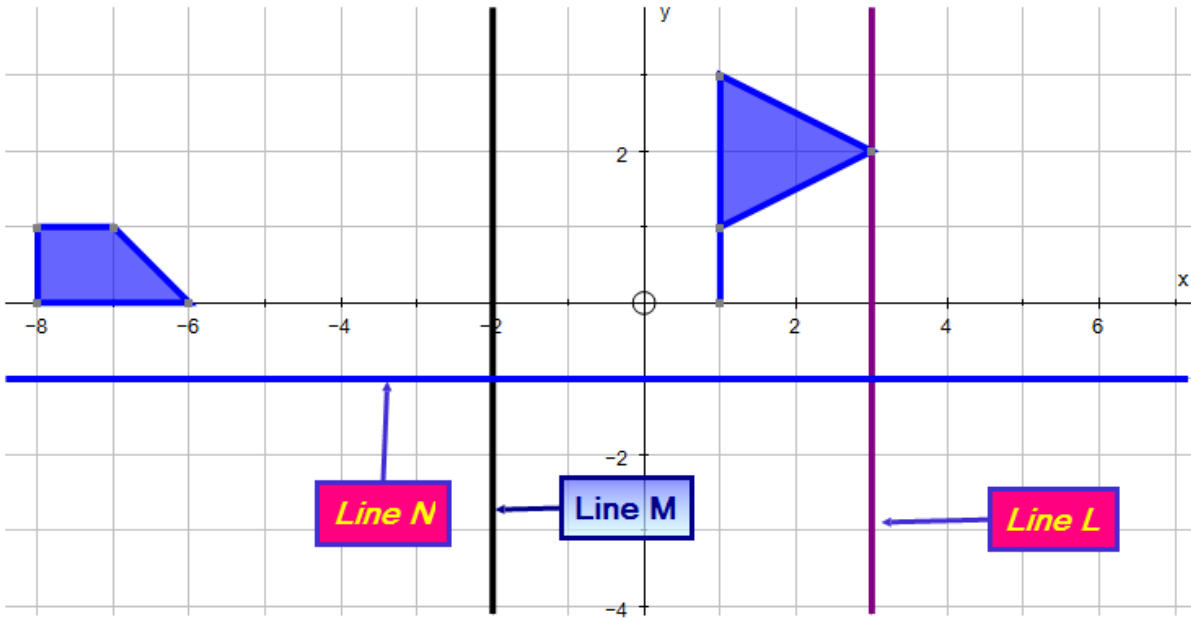


Worksheet on Reflections (KS3+KS4)

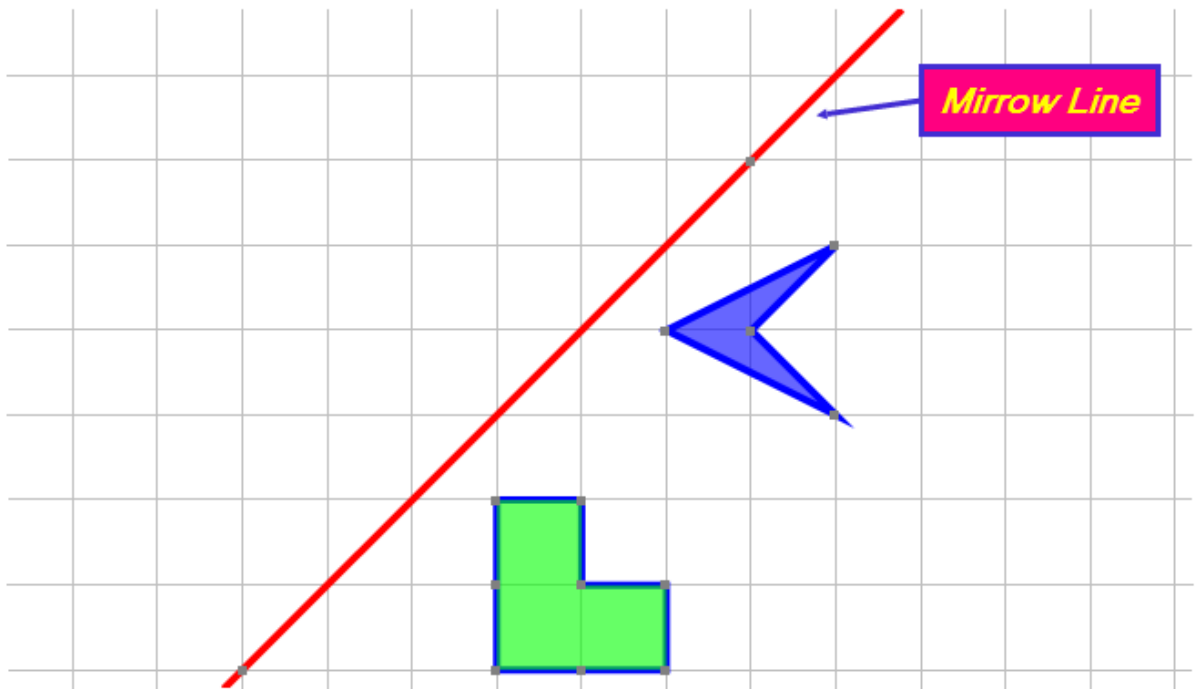
- Reflect the flag in the line L and Line M. Label your images A and B.
 - Reflect the trapezium in the line N and label your image C.
- Write down the equations of the lines L, M and N.



- Draw a shape and ask your friend to reflect it in the line given. (For Discussion)

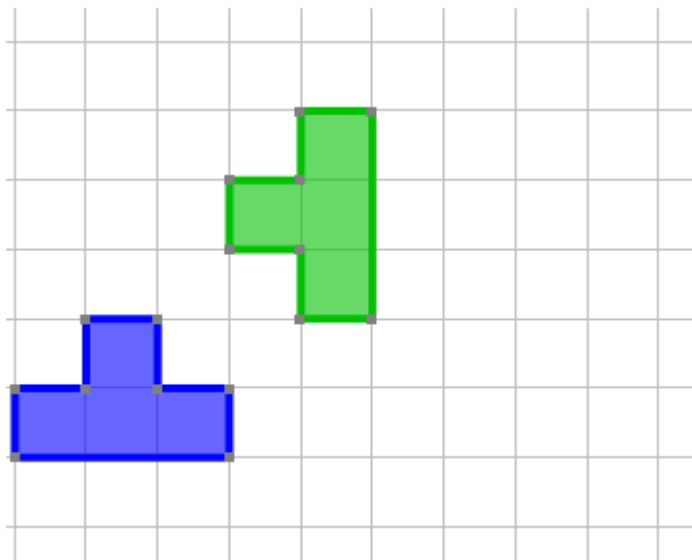


3. Draw the images of the shapes below under a reflection in the mirror line show below.

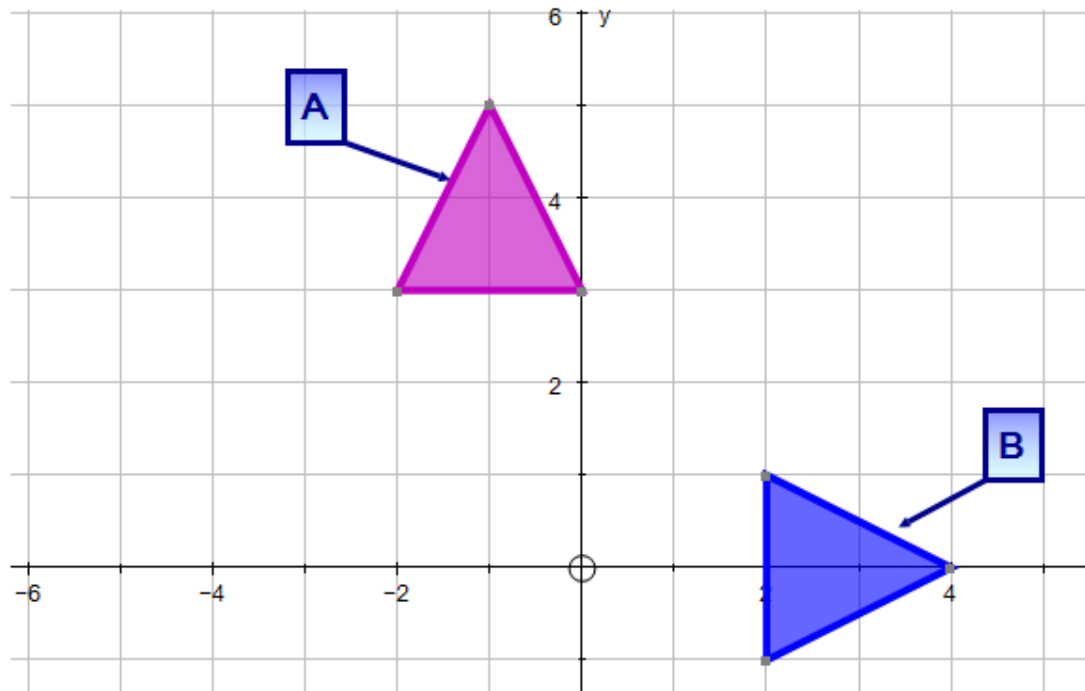


4. (a) What do you notice about the lines joining each point on a shape to its image above?
(b) What about the mirror line in relation to the lines mentioned above?

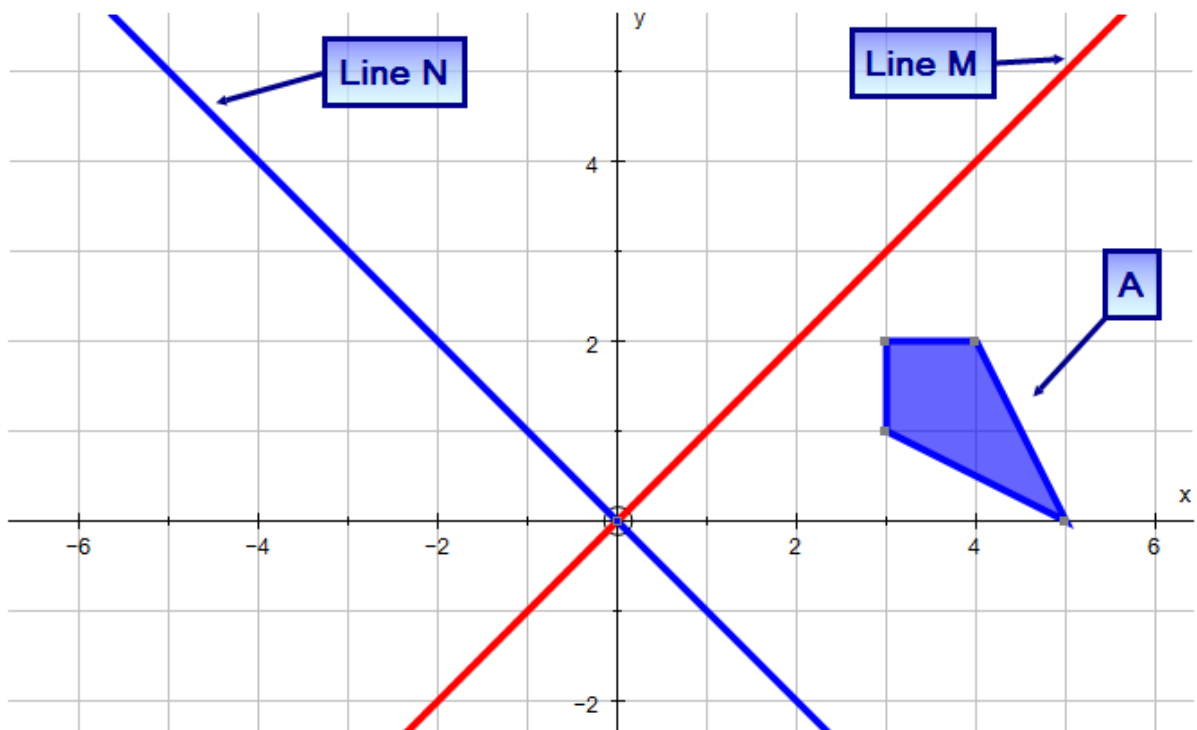
5. Draw the mirror line.



6. (a) Draw the mirror line for the reflection which has taken place from shape A to shape B.
 (b) Write down the equation of the line.
 (c) Reflect shape B in the x and y -axes. Label the images C and D.

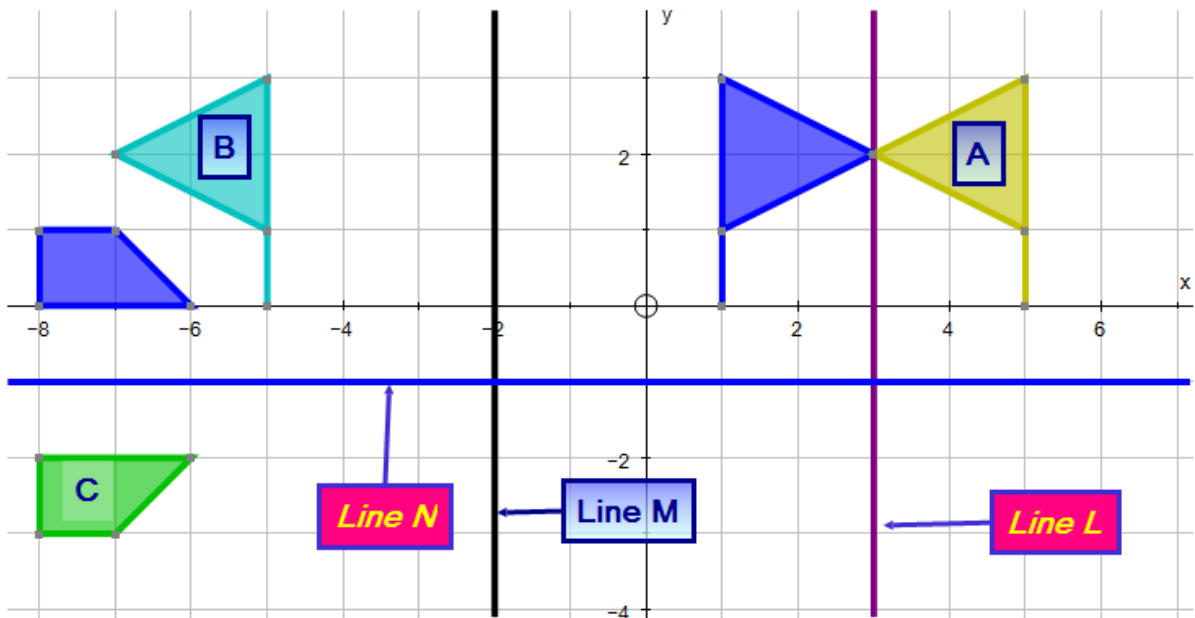


7. (a) Draw the image of shape A under a reflection in the line M. Label the image B.
 (b) Now reflect B in the line N and label the image C.
 (c) Describe fully a single transformation that would map shape A onto C.
 (d) Write down the equations of the lines M and N.



Answers:

1.

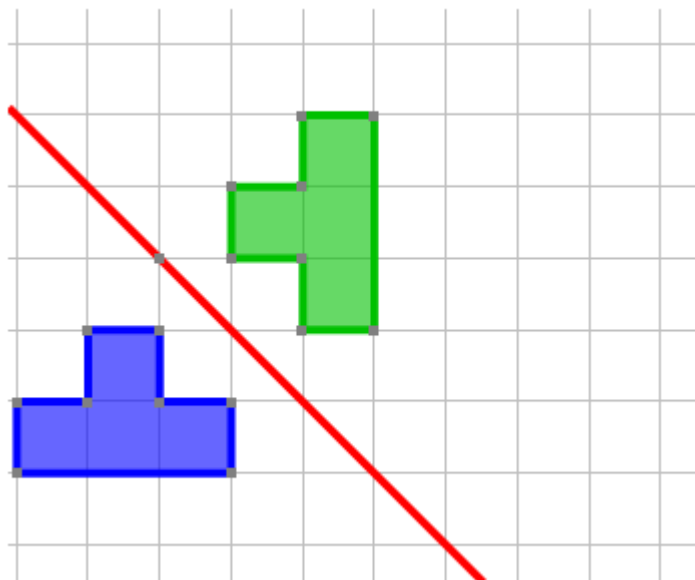


2. For discussion.

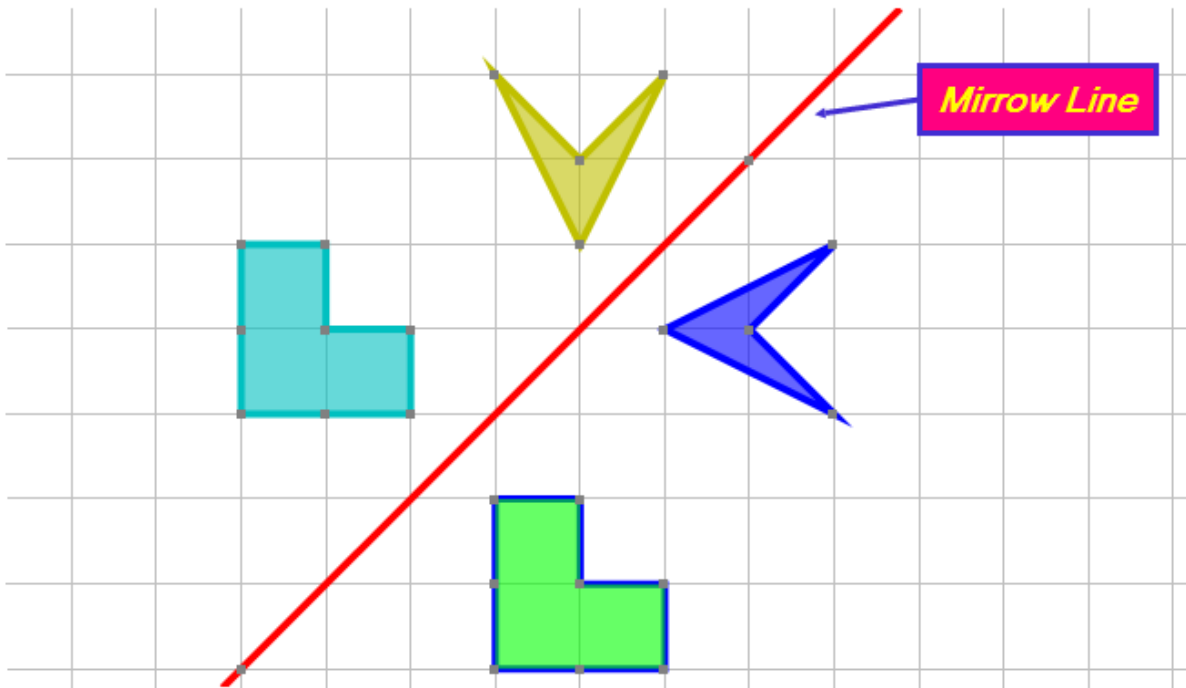
4. (a) The lines are parallel.

(b) The mirror line bisects (cuts in half) the lines at 90° .

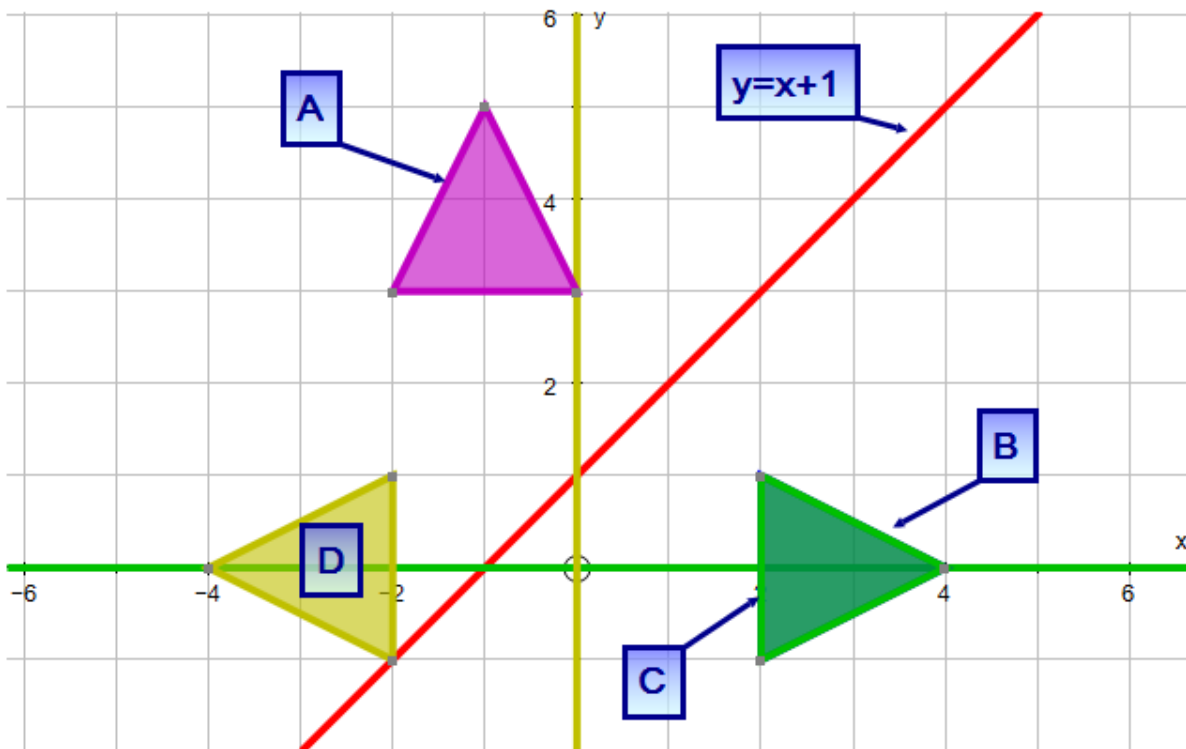
5.



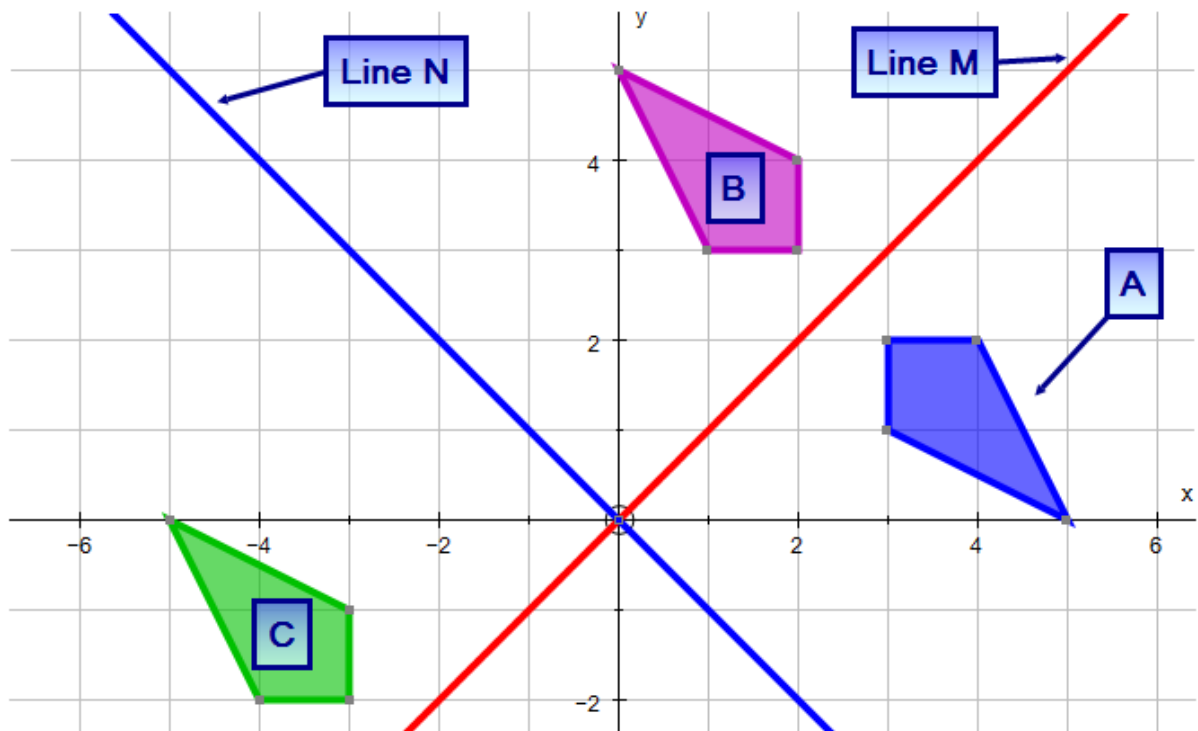
3.



6.



7.



(c) Rotation 180° about the origin $(0,0)$.

(d) M: $y = x$, N: $y = -x$

I hope you find this useful. Please let me know if you find any errors.