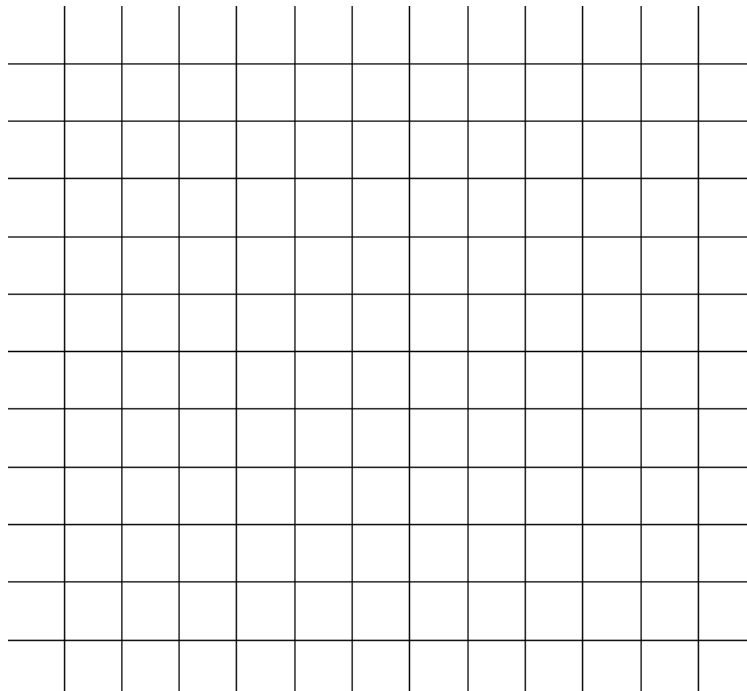
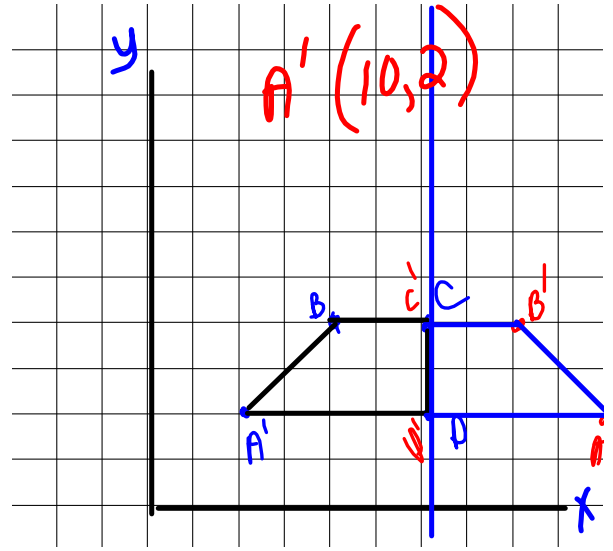
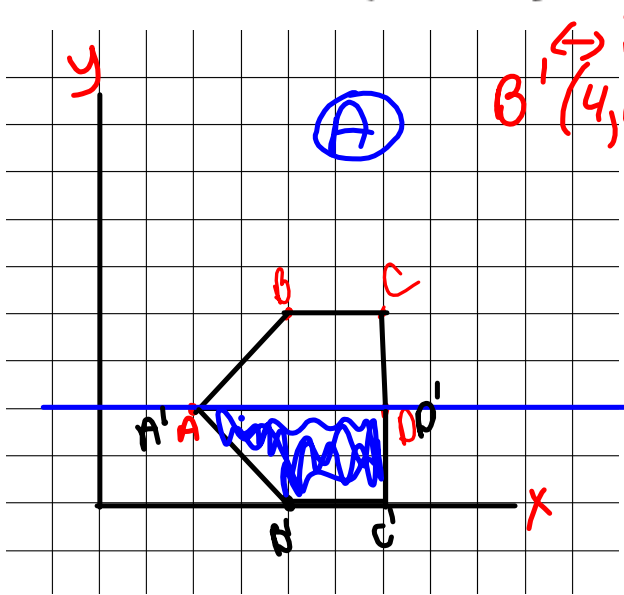
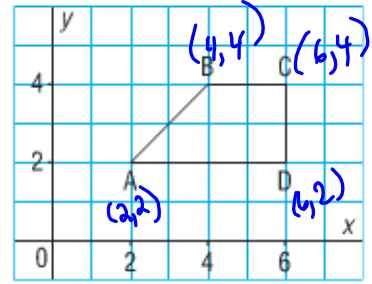


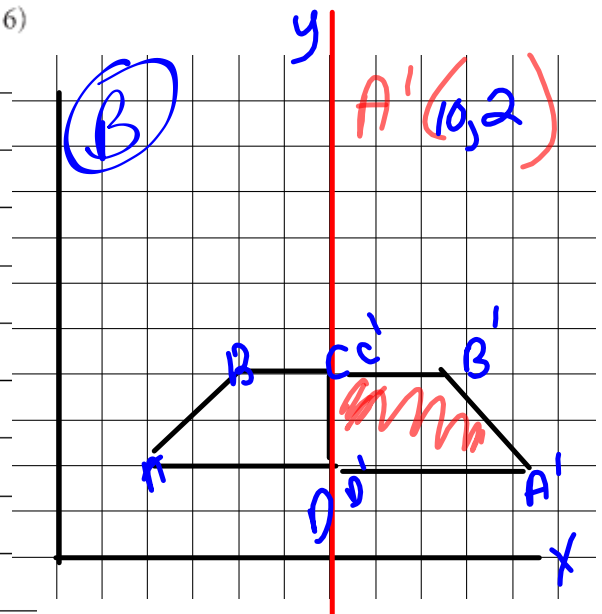
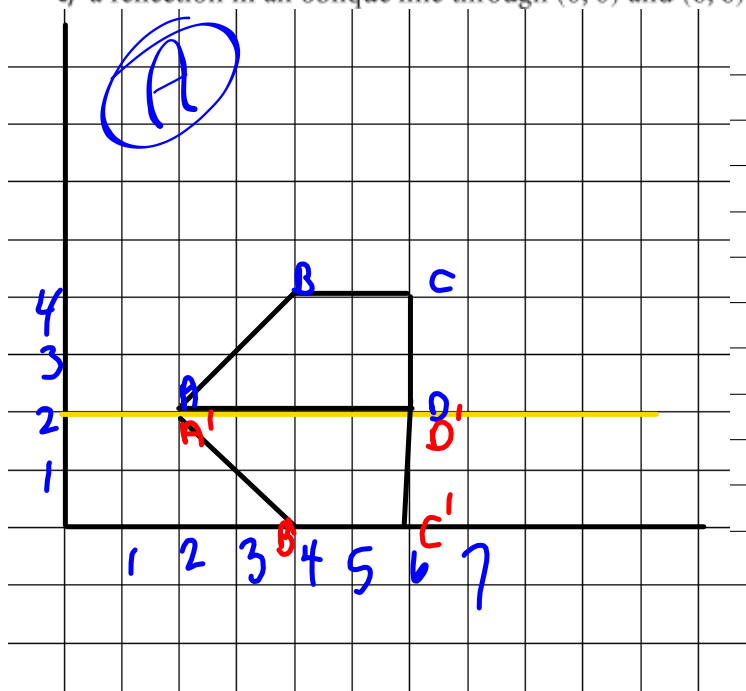
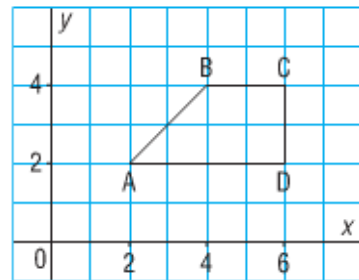
Quadrilateral ABCD is part of a larger shape.

- Draw the image of ABCD after each reflection below.
  - Write the coordinates of the larger shape formed by ABCD and its image.
  - Describe the larger shape and its symmetry.
- a reflection in the horizontal line through 2 on the  $y$ -axis
  - b) a reflection in the vertical line through 6 on the  $x$ -axis
  - c) a reflection in an oblique line through  $(0, 0)$  and  $(6, 6)$



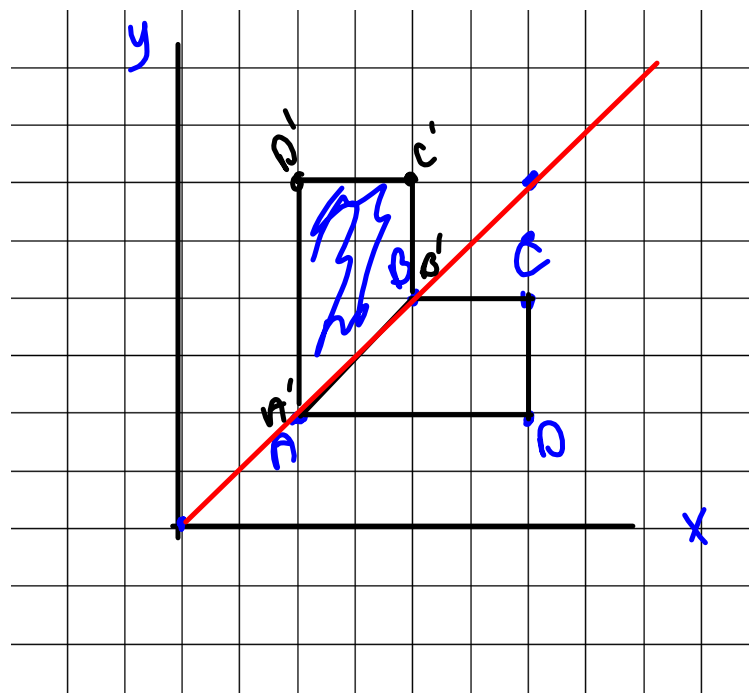
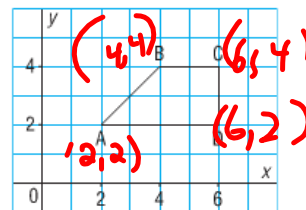
Quadrilateral ABCD is part of a larger shape.

- Draw the image of ABCD after each reflection below.
  - Write the coordinates of the larger shape formed by ABCD and its image.
  - Describe the larger shape and its symmetry.
- a reflection in the horizontal line through 2 on the  $y$ -axis
  - a reflection in the vertical line through 6 on the  $x$ -axis
  - a reflection in an oblique line through  $(0, 0)$  and  $(6, 6)$



Quadrilateral ABCD is part of a larger shape.

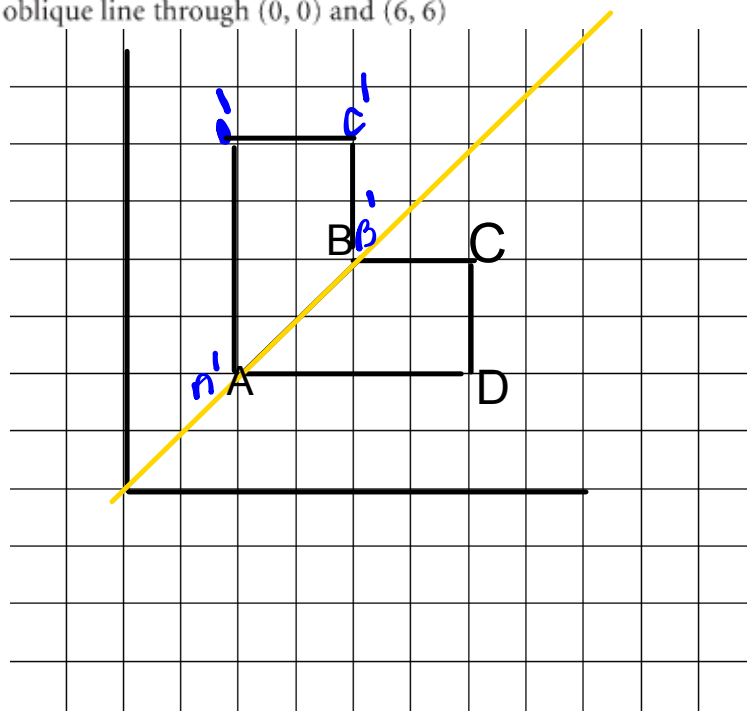
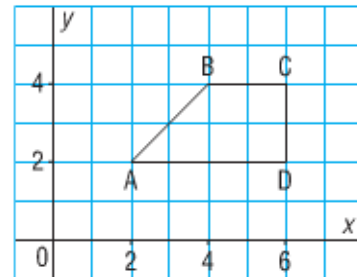
- Draw the image of ABCD after each reflection below.
  - Write the coordinates of the larger shape formed by ABCD and its image.
  - Describe the larger shape and its symmetry.
- a) a reflection in the horizontal line through 2 on the  $y$ -axis
  - b) a reflection in the vertical line through 6 on the  $x$ -axis
  - c) a reflection in an oblique line through  $(0, 0)$  and  $(6, 6)$



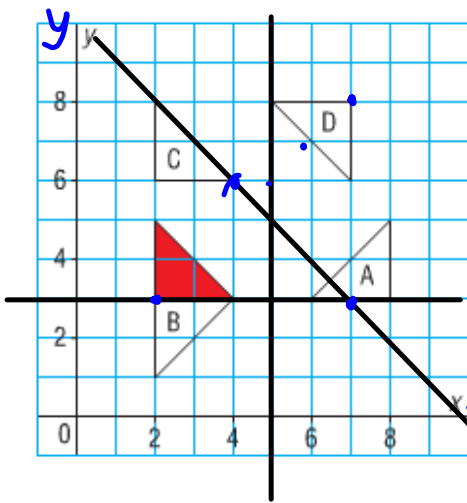
$x, y$   
 $D'(2, 6)$

Quadrilateral ABCD is part of a larger shape.

- Draw the image of ABCD after each reflection below.
  - Write the coordinates of the larger shape formed by ABCD and its image.
  - Describe the larger shape and its symmetry.
- a) a reflection in the horizontal line through 2 on the  $y$ -axis
  - b) a reflection in the vertical line through 6 on the  $x$ -axis
  - c) a reflection in an oblique line through  $(0, 0)$  and  $(6, 6)$



Identify the triangles that are related to the red triangle by a line of reflection.  
Describe the position of each line of symmetry.



A ~~is~~ is not a reflection of the original triangle through 5 on the x axis

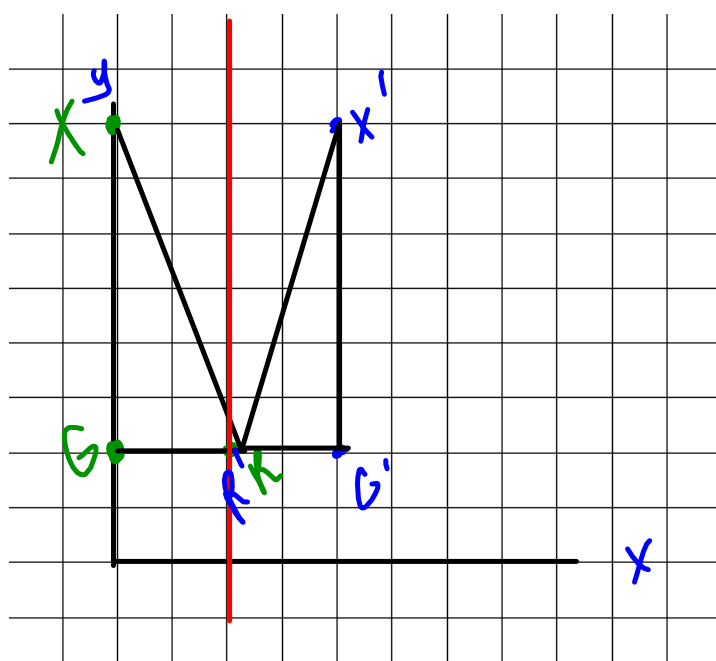
B ~~is~~ is not a reflection of the original triangle through the 3 on the y axis

C ~~is~~ is not a reflection....

D ~~is~~ is not a reflection through  $(8, 2)$  and  $(1, 8)$

Plot the following points: G (0,2) R (2,2) X (0,8)

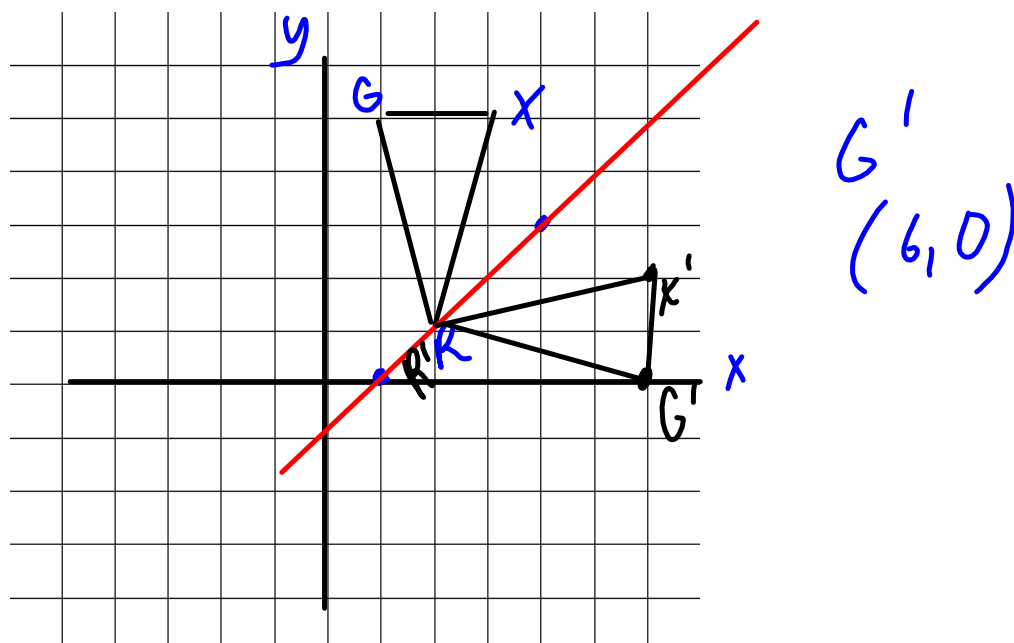
A. Draw a reflection through 2 on x axis

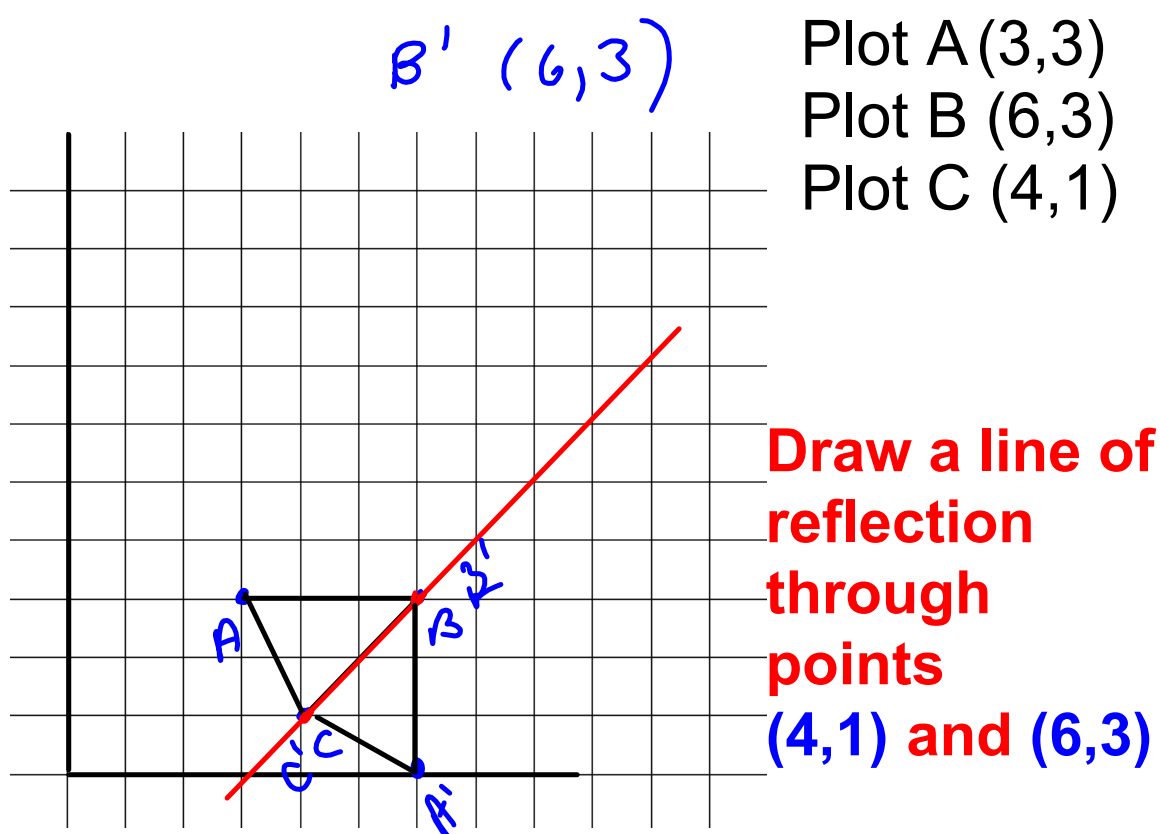


$X'(4,8)$

Plot the following points: G (1,5) R (2,1) X(3,5)

B. Draw a reflection through the line passing between (1,0) and (4,3)



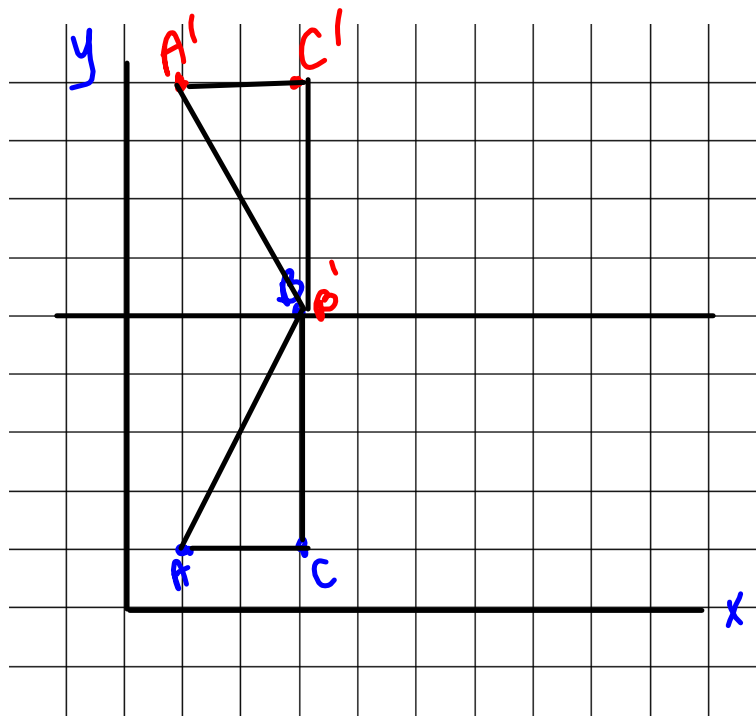




Plot the following points: **A (1,1)**, **B (3,5)** and **C (3, 1)**

Draw a reflection through the y-axis at 5

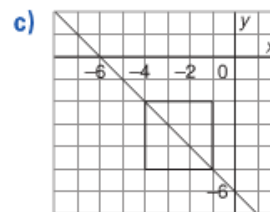
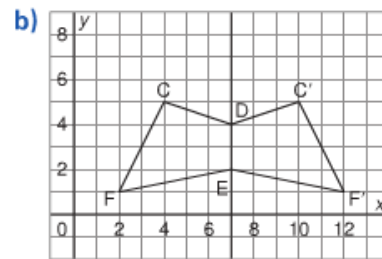
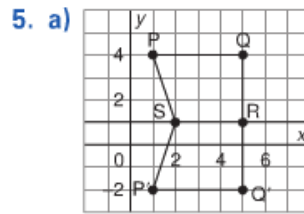
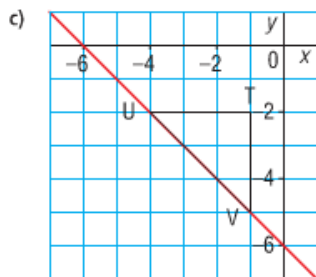
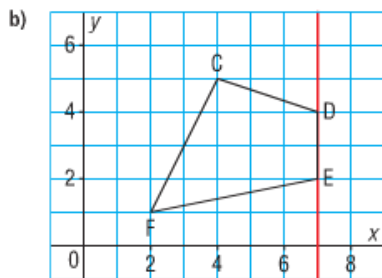
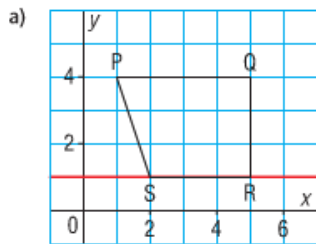
$C'(5, 9)$



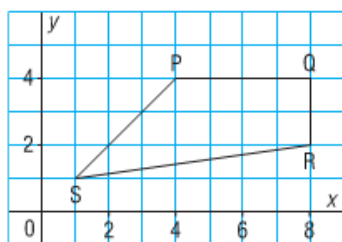
# Homework knowemoh

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3, 5  
8  
9, 10



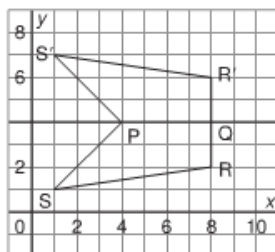
8. Quadrilateral PQRS is part of a larger shape



After each reflection below:

- Draw the image of PQRS.
  - Write the coordinates of the larger shape formed by PQRS and its image.
  - Describe the larger shape and its symmetry.
- a) a reflection in the horizontal line through 4 on the  $y$ -axis
  - b) a reflection in the vertical line through 8 on the  $x$ -axis
  - c) a reflection in the oblique line through (1, 1) and (4, 4)

8. a)

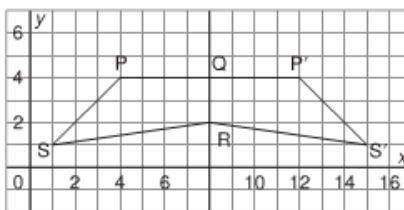


The larger shape has coordinates:

$R(8, 2), S(1, 1), P(4, 4), S'(1, 7), R'(8, 6)$

It is a pentagon with a line of symmetry through side  $PQ$ .

b)

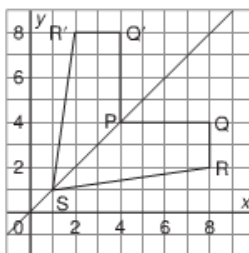


The larger shape has coordinates:

$R(8, 2), S(1, 1), P(4, 4), P'(12, 4), S'(15, 1)$

It is a pentagon with a line of symmetry through side  $QR$ .

c)

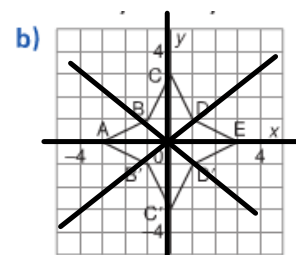
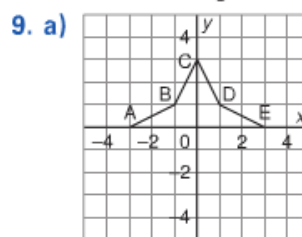


The larger shape has coordinates:

$P(4, 4), Q(8, 4), R(8, 2), S(1, 1), R'(2, 8), Q'(4, 8)$

It is a hexagon with a line of symmetry through side  $PS$ .

9. a) Graph these points on grid paper:  
 $A(-3, 0)$ ,  $B(-1, 1)$ ,  $C(0, 3)$ ,  
 $D(1, 1)$ ,  $E(3, 0)$ .  
 Join the points to form polygon ABCDE.
- b) Reflect the polygon in the  $x$ -axis. Draw and label its image.
- c) Write the coordinates of the shape formed by the polygon and its image.
- d) How many lines of symmetry does this shape have? How do you know?



- c)  $A(-3, 0)$ ,  $B(-1, 1)$ ,  $C(0, 3)$ ,  $D(1, 1)$ ,  $E(3, 0)$ ,  
 $D'(1, -1)$ ,  $C'(0, -3)$ ,  $B'(-1, -1)$
- d) The shape has 4 lines of symmetry:  $x$ -axis,  $y$ -axis, the line through points  $B'$  and  $D$ , the line through points  $B$  and  $D'$

