Fast Five

1) 12% of 340 =
2) 349.8274 - 96.082 =
3) 84 x 13 =
4) 9^3 =
5) 202.222 + 1211.102 =

Fast Five Answers

1) 12% of 340 = 40.8
2) 349.8274 - 96.082 = 253.7454
3) 84 x 13 = 1092
4) 9^3 = 729
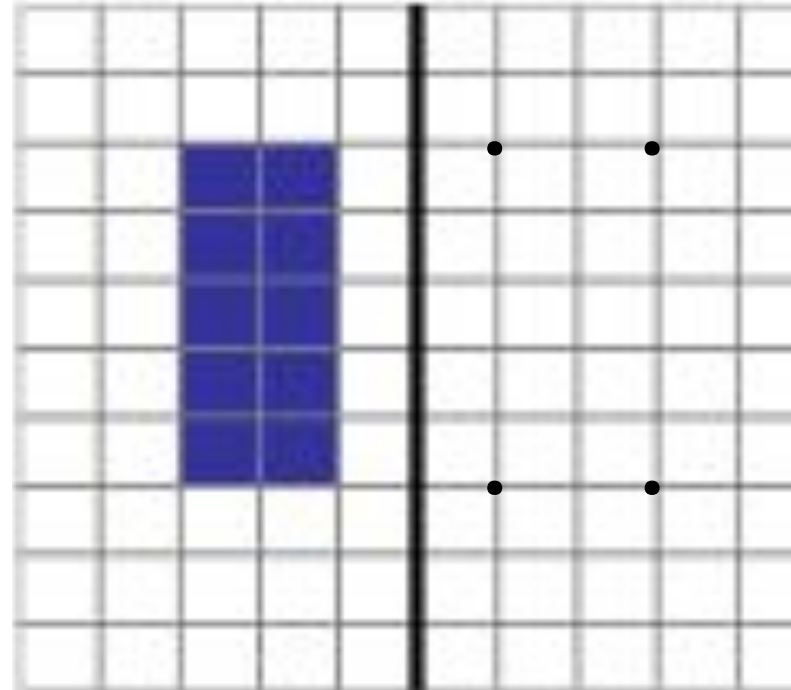5) 202.222 + 1211.102 = 1413.324

Can I use reflection with all 4 quadrants?

Reflection about 1 axis

When we reflect on an axis, we imagine we are holding a mirror along the line. It will look like the shape has vertically flipped over
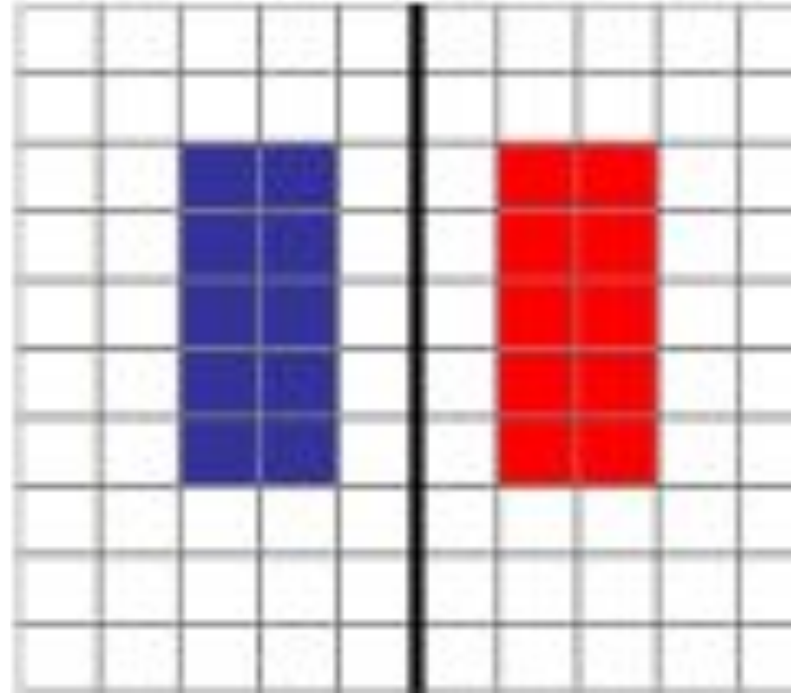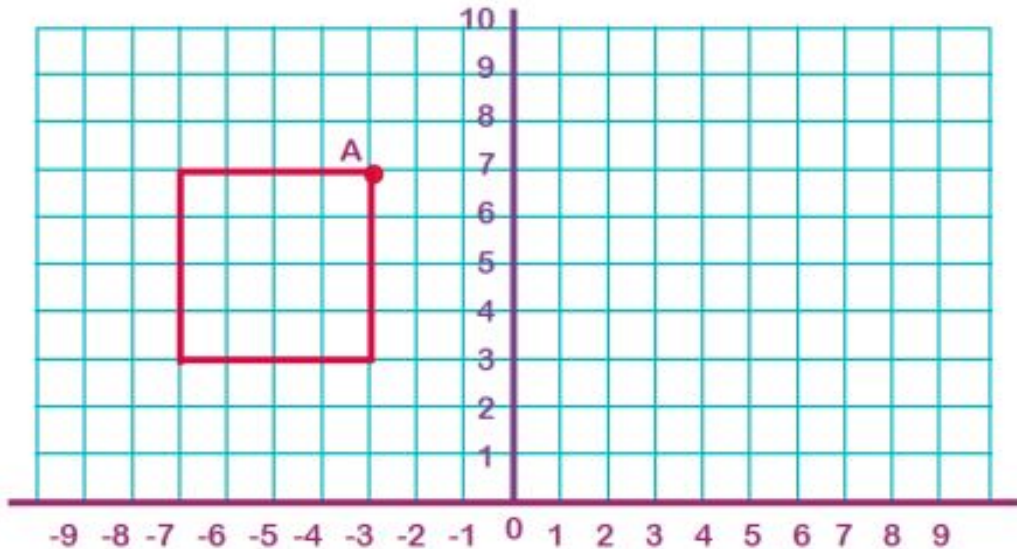
Choose one corner of our shape and plot it the same distance the other side.

Then do the same for all of the other corners

Our reflection should look like this.

Now have a think about what this shape would look like if it was reflected...

So, point A coordinates are (-3, 7). To reflect our shape, we are reflecting it on the Y axis. This means the Y axis coordinates will be the same, but the X axis will change from negative to positive.

The other points will need to be plotted to ensure the shape is the same on the reflection.
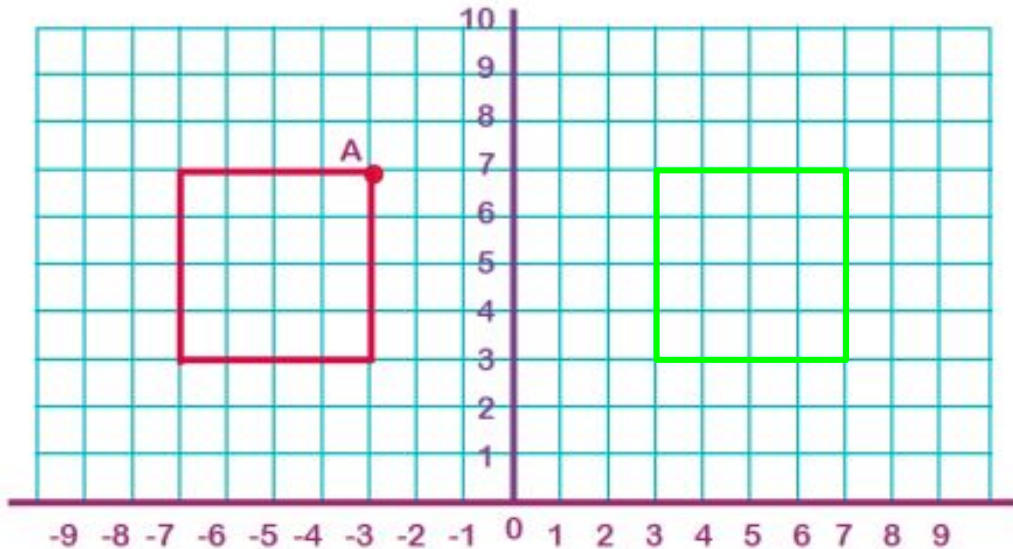
New shape coordinates:
(3,7) (7,7) (7,3) (3,3)

Reflection on 2 axis

Reflecting on a coordinate grid is just like reflecting on 1 axis.
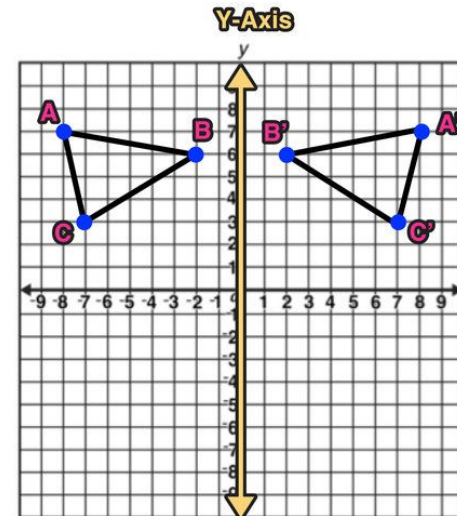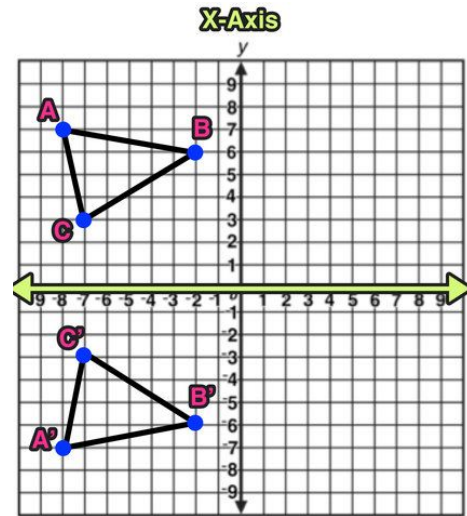
If reflecting on the x axis, the x coordinate stays the same, but the y coordinate sign is flipped. For example, (2,6) would become (2,-6)

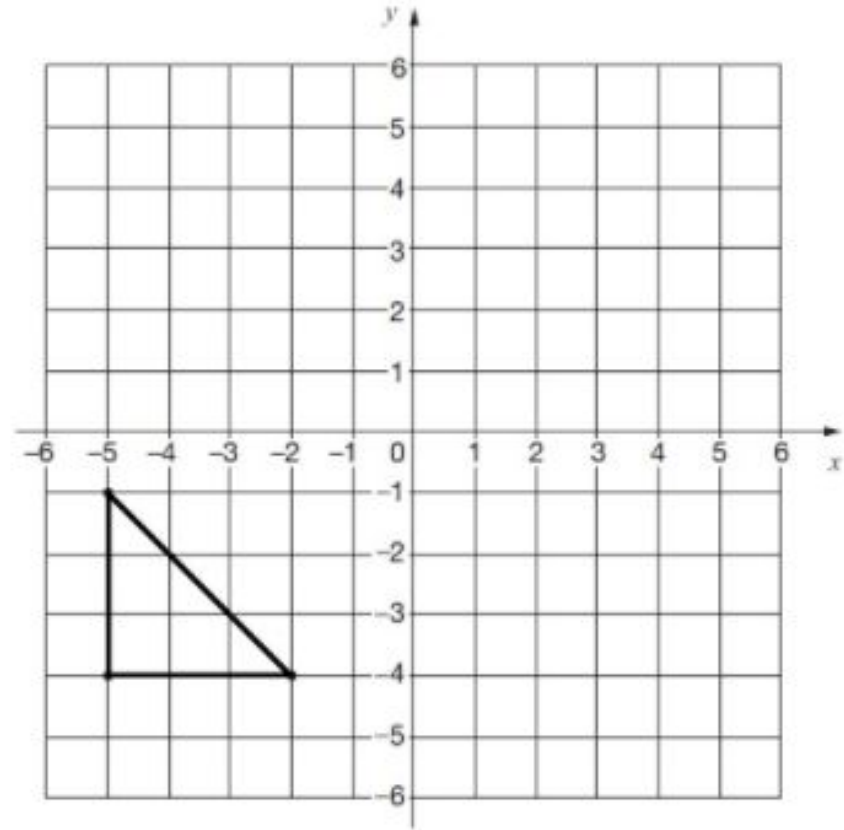If reflecting on the y axis, the y

Coordinate stays the same, but the x

Coordinate sign is flipped. For

Example, (3,7) would become (-3, 7)

Now try this…

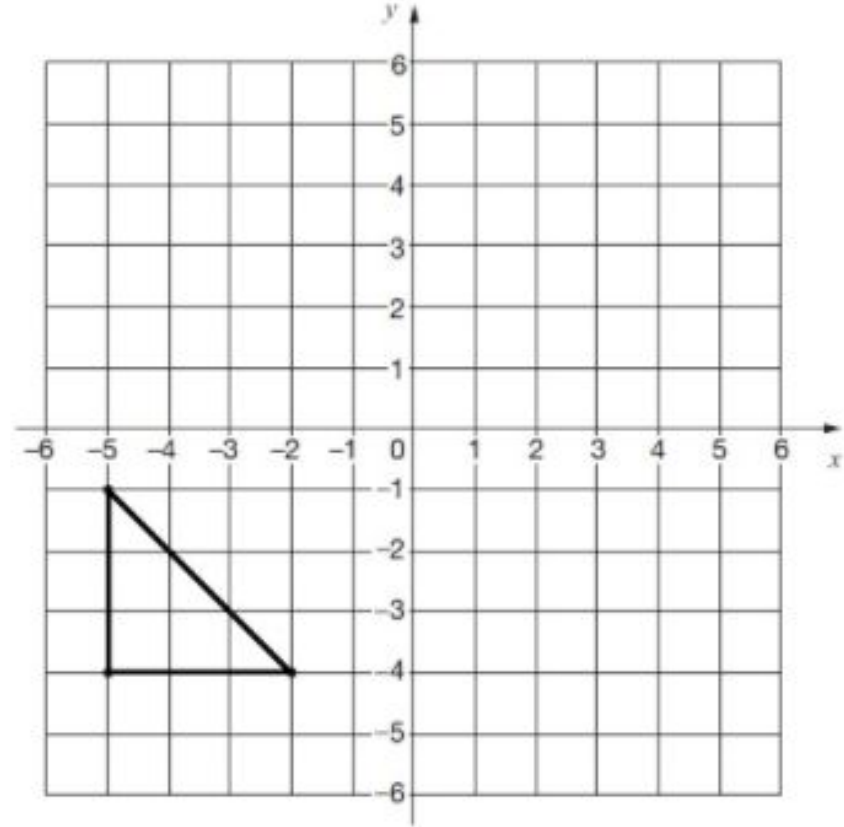Write the coordinates of the triangle being reflected on the x axis and then the y axis

Now try this…

Write the coordinates of the triangle being reflected on the x axis and then the y axis
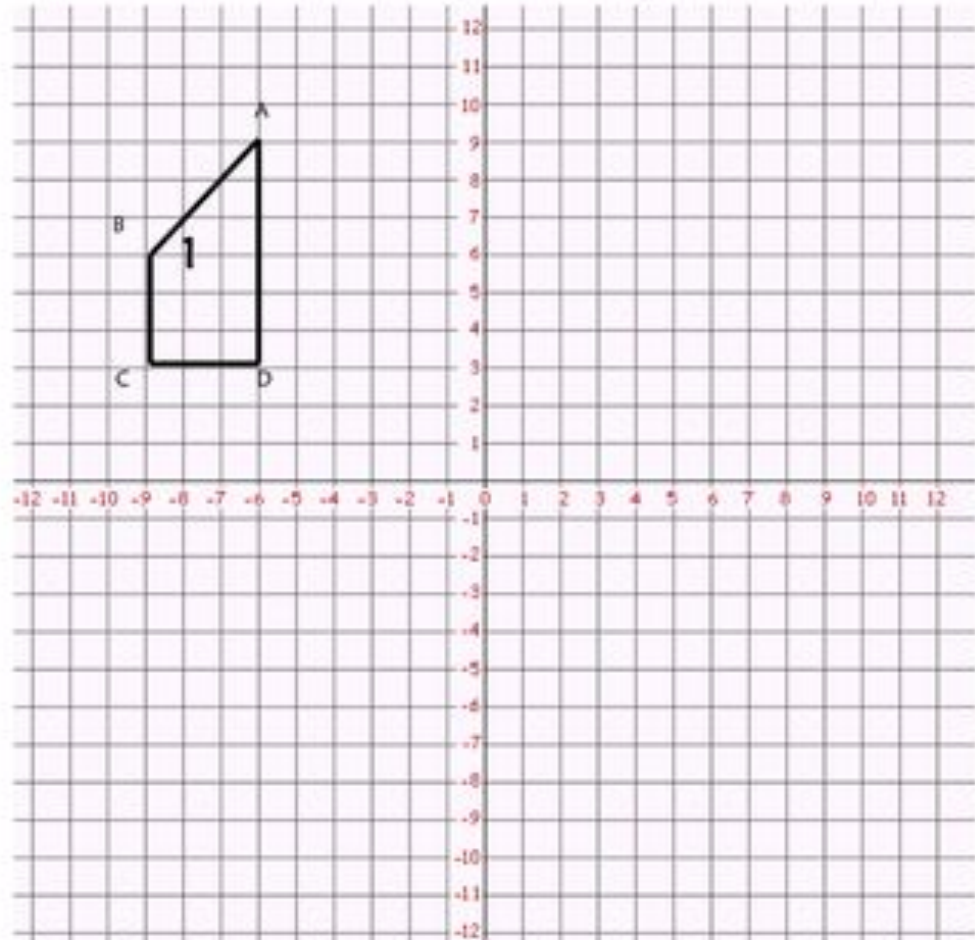
Reflection on X axis:
(-5,1) (-2,4) (-5,4)

Reflection on the Y axis:
(2,-4) (5,-4) (5,-1)

Now try this…

What are the coordinates of the quadrilateral?

Next, find out the coordinates after b reflected in the x and y axis.

Original Shape:

A = (-6,9)

B = (-9,6)

C = (-9,3)

D = (-6,3)

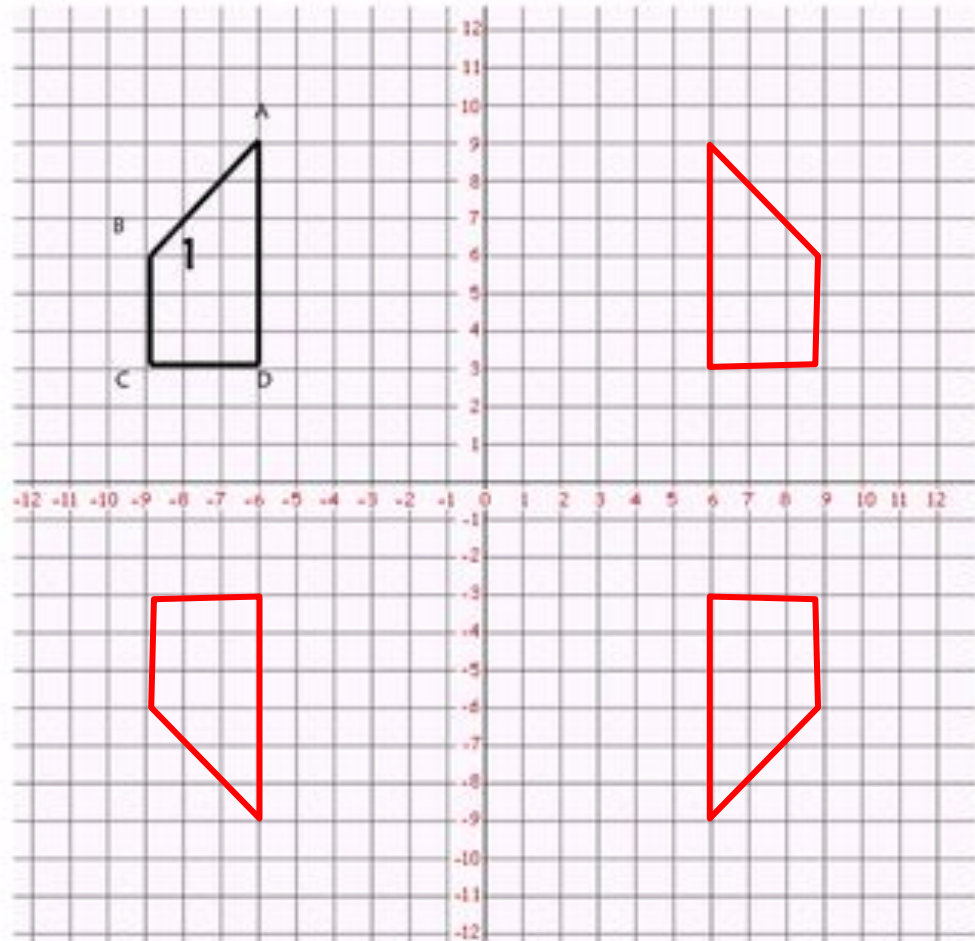Y axis reflection

A = (6,9)

B = (9,6)

C = (9,3)

D = (6,3)

X axis reflection:

A = (-6,-9)   D = (6,-3)
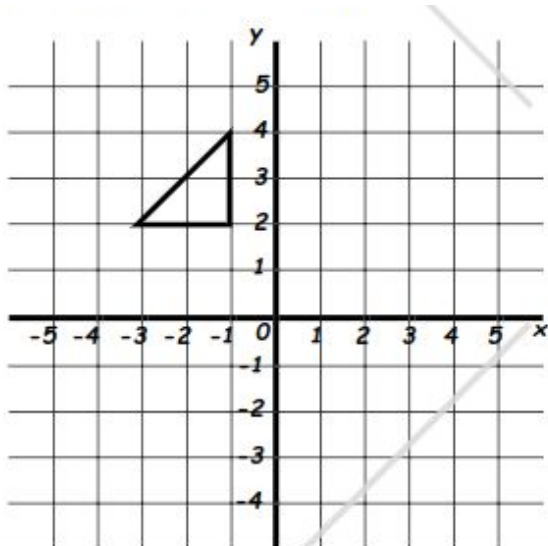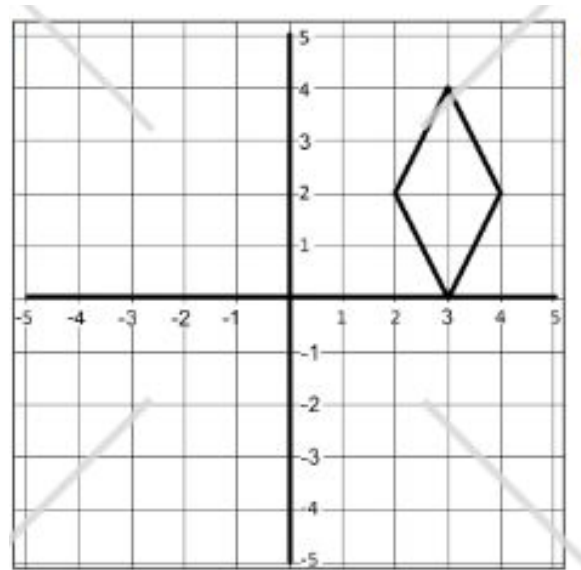
B = (-9,-6)

C = (-9,-3)

RED TASK

Draw a grid and reflect the following shapes on the *y* axis.
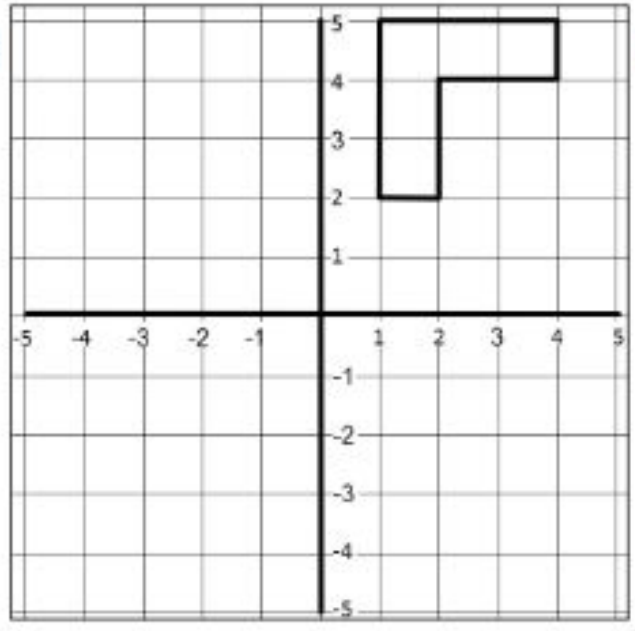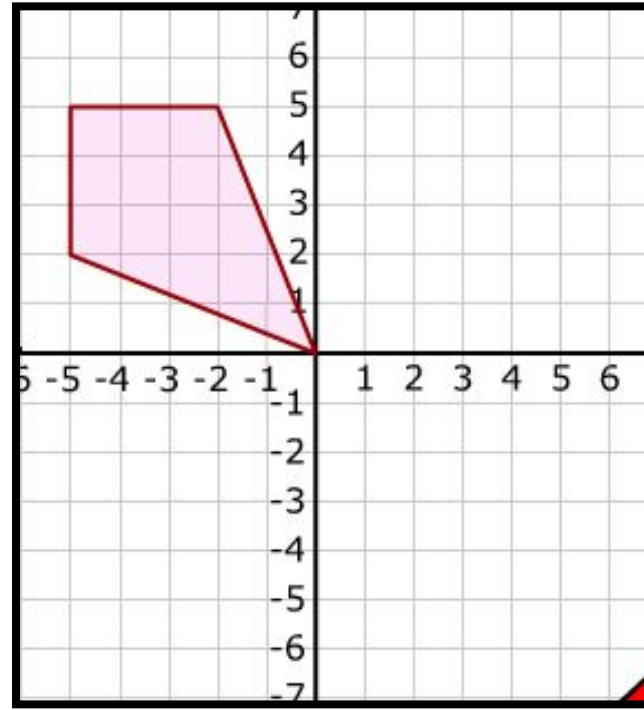
1)

2)

RED TASK CONTINUED

Draw a grid and reflect the following shape on the *x* and *y* axis.
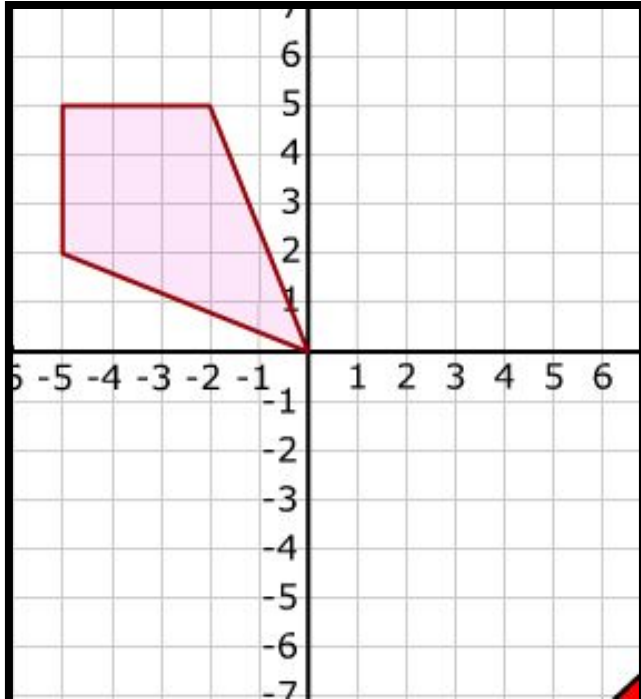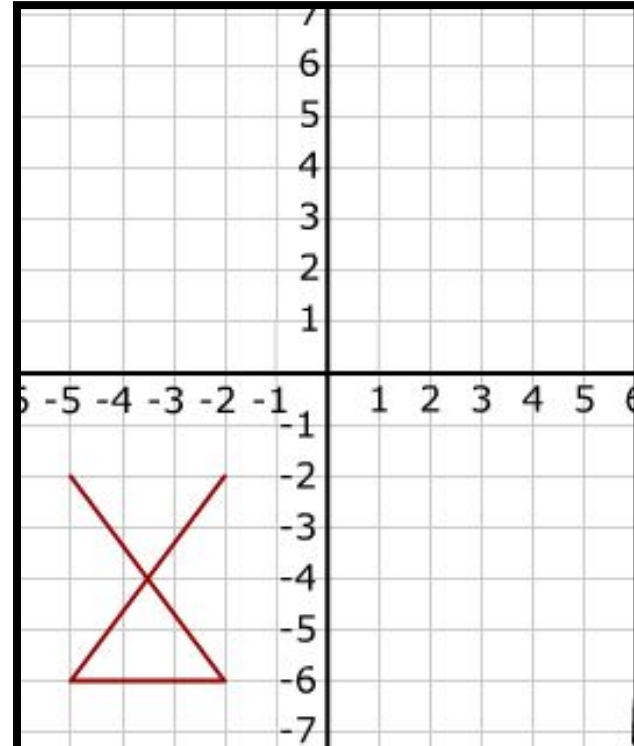

3)

4)

YELLOW TASK

Draw the grids and shapes. Reflect the following shapes on the *x* axis and the *y* axis.
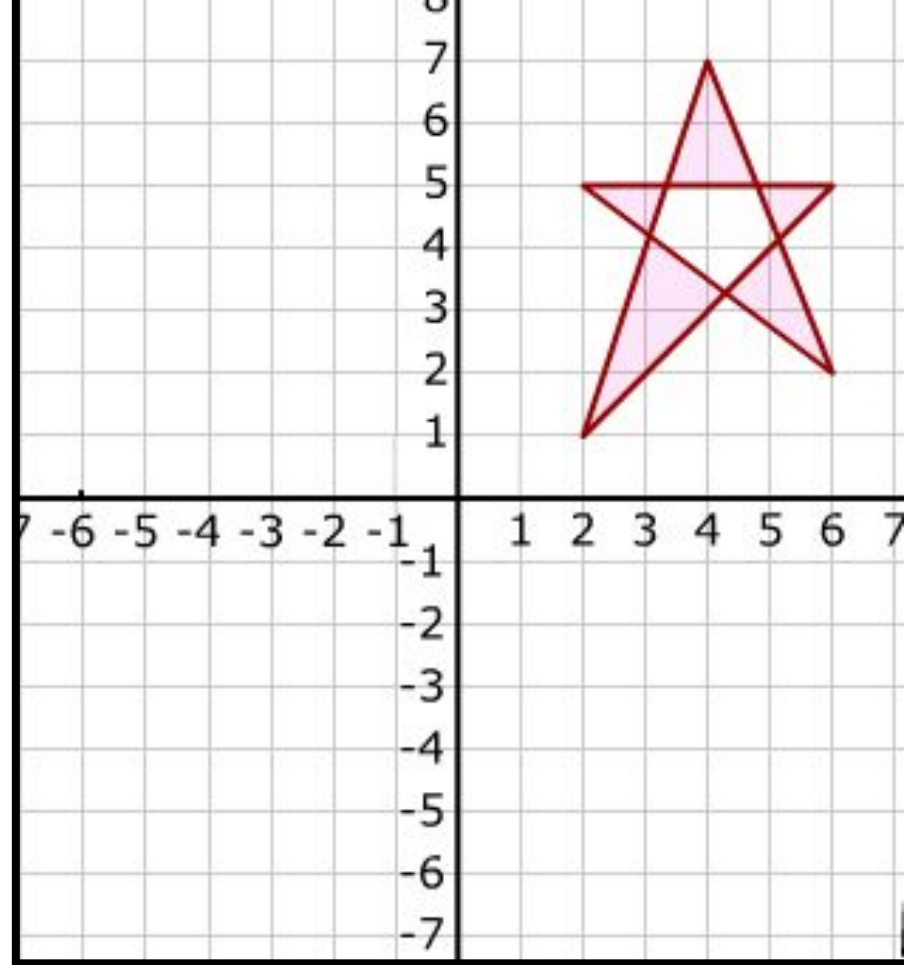
1)

2)

YELLOW TASK CONTINUED

3) Draw the grids and shapes. Reflect the following shape on the *x* axis and the *y* axis.
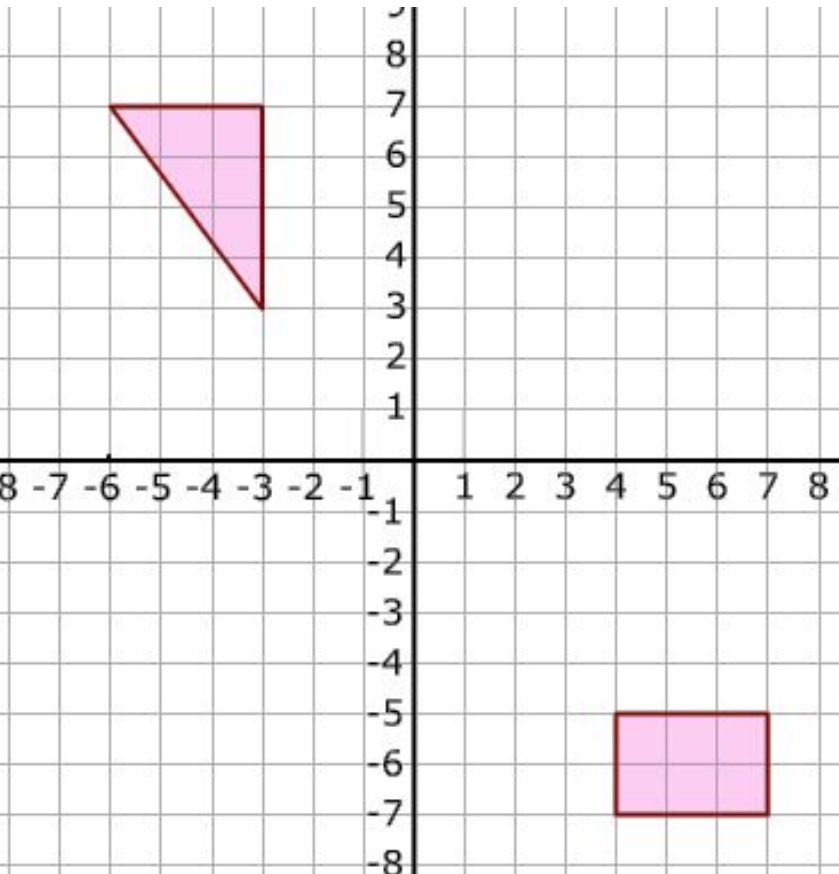
4) Plot a triangle with the coordinates:

(1,1) (4,1) (2,3)

Reflect the triangle on the *x* axis and the *y* axis.

GREEN TASK

Draw the grid and shapes.

1) Reflect the triangle in the line y = 3. Colour it BLUE.

2) Reflect the triangle in the line x = -2. Colour it RED.

3) Reflect the rectangle in the line x = 2. Colour it Green.

4) Reflect the rectangle in the line y = -1. Colour it Yellow.

GREEN CONTINUED

5) Draw a coordinate grid and plot the following shape:

(3,1) (6,1) (8,3) (8,5) (6,7) (3,7) (5,4)

Then reflect the shape in the line x = -1