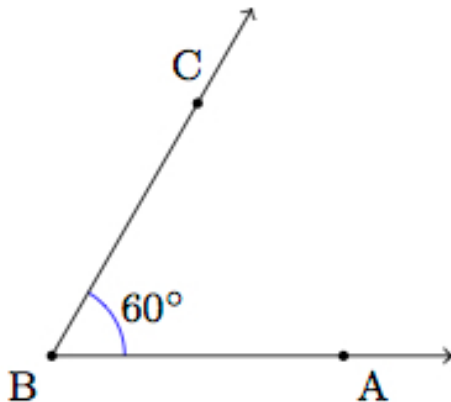


1. An angle below measures 60° degrees:

a)



Draw another angle that measures 30° degrees. It should have the same vertex and share side BC .

b)

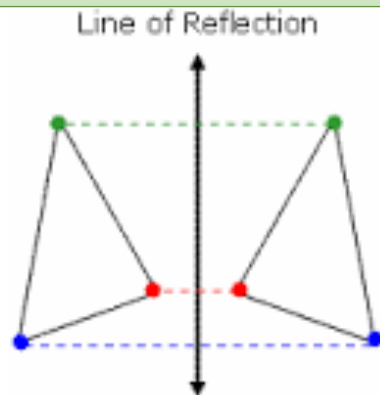
How many angles are there in the figure you drew? What are their measures?

Reflection of point or figure on a coordinate plane.

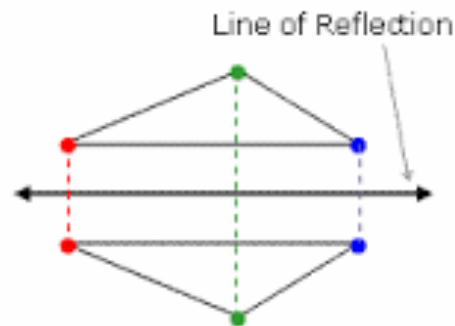
The reflection of the point (x,y) across the **x-axis** is the point $(x,-y)$.

The reflection of the point (x,y) across the **y-axis** is the point $(-x,y)$.

Notice that each original point and its image are the same distance away from the line of reflection. You may be able to simply "count" these distances on the grid.



Horizontal Reflection
(flips across)



Vertical Reflection
(flips up/down)

2.

a) Find the coordinates of each vertex of triangle QPR

Q (,) P (,) R (,)

b) Reflect this triangle horizontally (flip across y-axis) to get a triangle L'K'M'

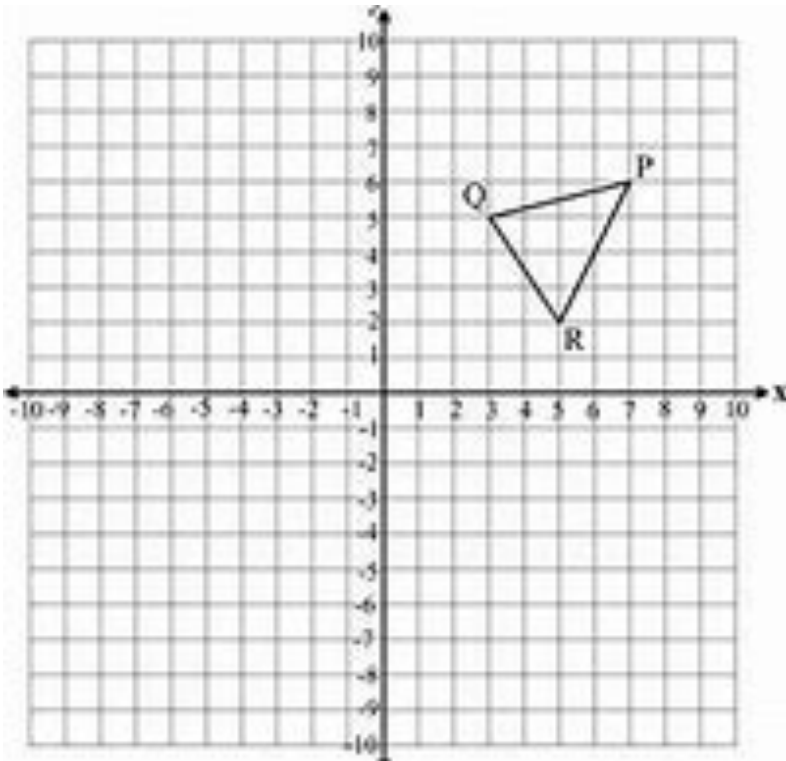
Find the coordinates of each vertex:

Q' (,) P' (,) R' (,)

c) Reflect this triangle vertically (flip across x-axis) to get a triangle L''K''M''

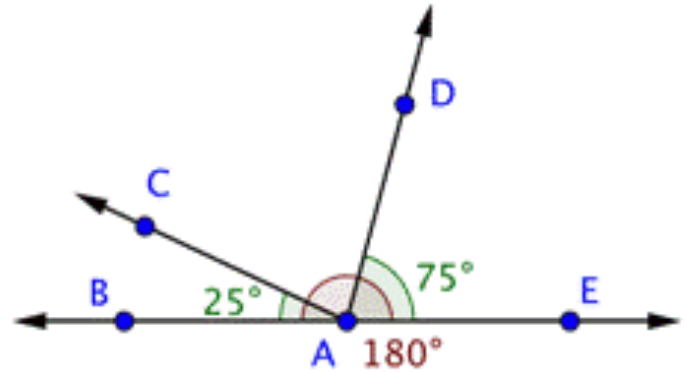
Find the coordinates of each vertex for reflected triangle L''K''M'':

Q'' (,) P'' (,) R'' (,)

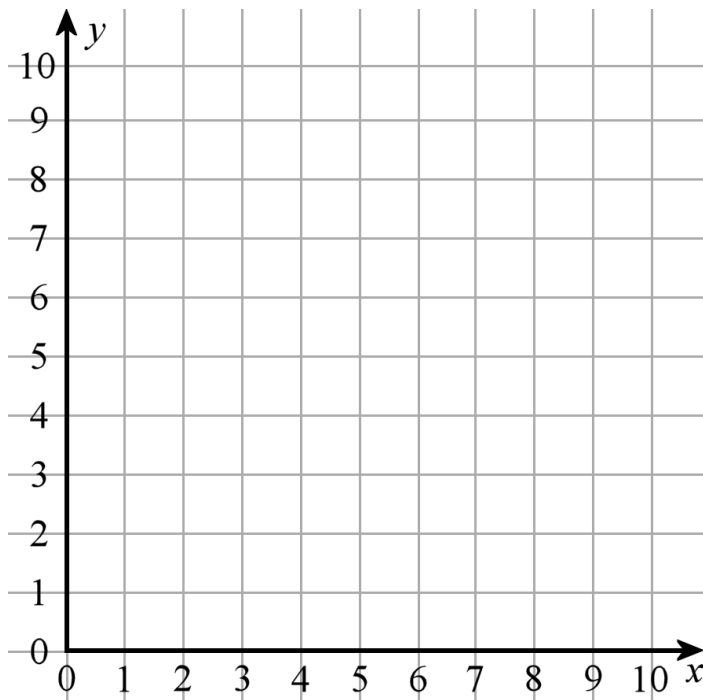


3. Below is a drawing of a straight angle $\angle BAE$ (remember that a straight angle is always 180°). The angle $\angle DAE$ equals 75° and the angle $\angle BAC = 25^\circ$.

- a) Find an angle $\angle CAD =$ _____
- b) Find an angle $\angle BAD =$ _____
- a) Find an angle $\angle CAE =$ _____



- 4. a) Draw a circle with center point $(6, 5)$ and a radius of 3 units.
- b) Draw another circle with the same center point but double the radius.



Translation on a coordinate plane.

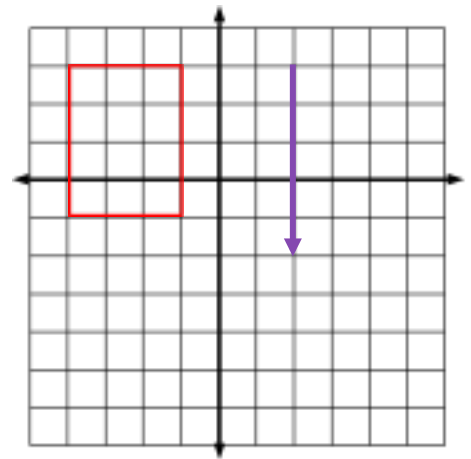
When a point or figure on a coordinate plane is moved by sliding it to the right or left or up or down, the movement is called a **translation**. The figure is **translated** from one position to another.

5.

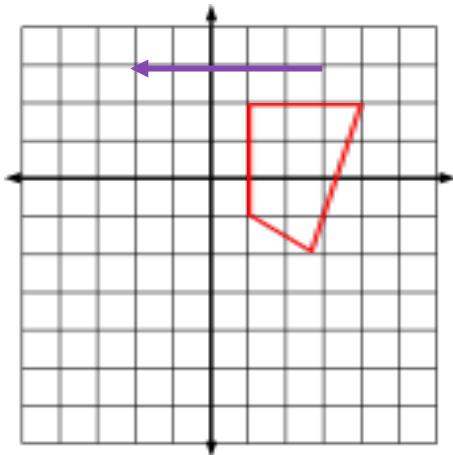
Move the given shapes according to the rules.

a) translate a figure by the following rule: $(x-0, y-5)$

(Hint - move the entire figure by 5 units down - along the y-axis, and do not move a figure along the x-axis)



b) move a figure according the rule: $(x-5, y-0)$



c) move a figure according the rule: $(x+3, y-3)$

