This file shows what happens to a triangle under a rotation of +60 degrees.

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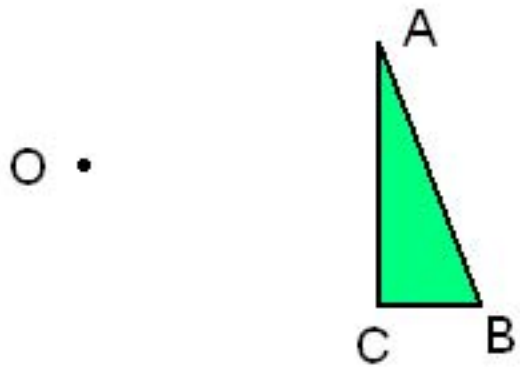
> Away from the center of rotation.
> With one vertex at the center of rotation.
> With the center of rotation inside the triangle.

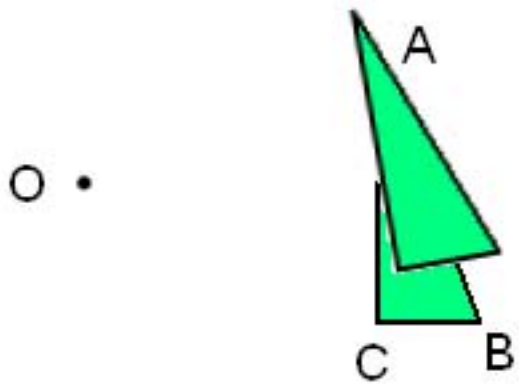
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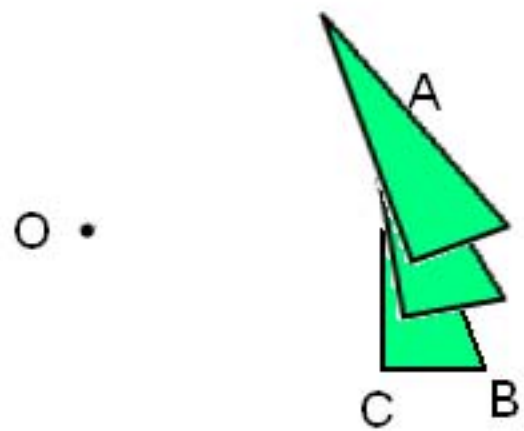
The triangle is shown in three different positions:

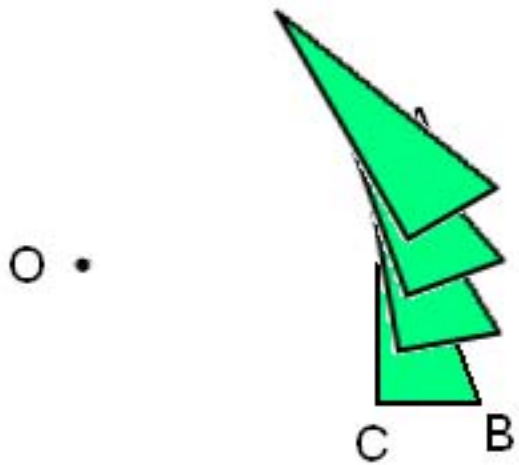
> Away from the center of rotation.
> With one vertex at the center of rotation.
> With the center of rotation inside the triangle.

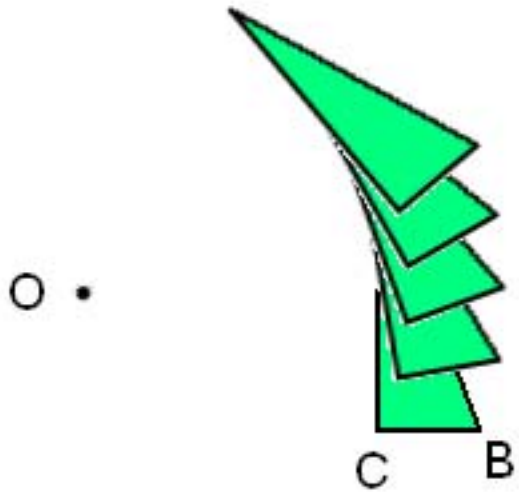
The rotation is shown in increments of 10 degrees so you can follow the motion of the rotating figure.

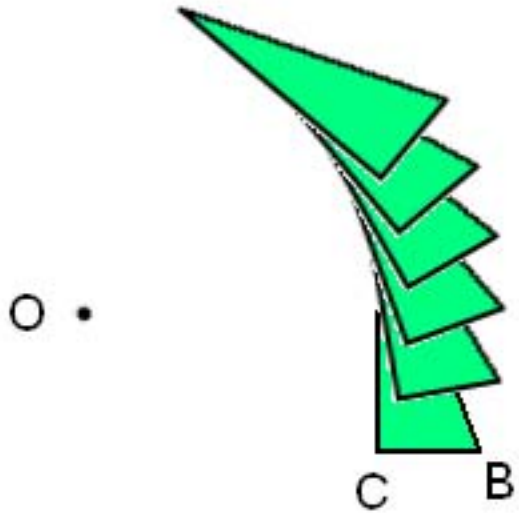

O
A
C
B

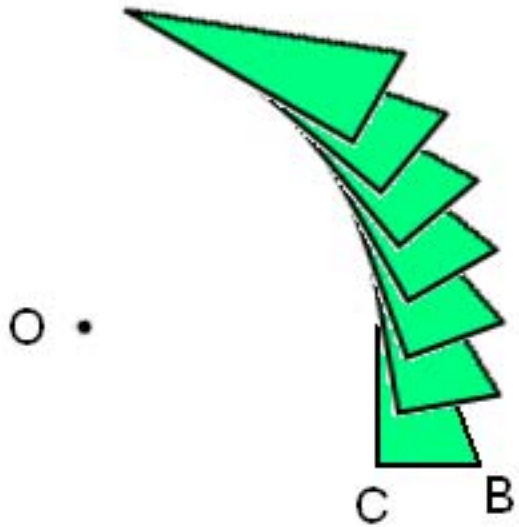

O
A
C
B

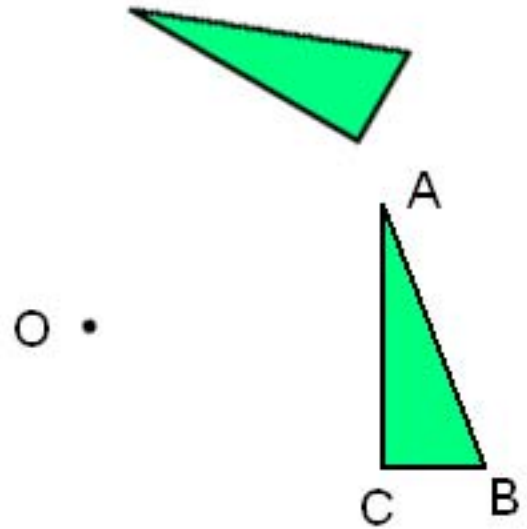

O
A
C
B

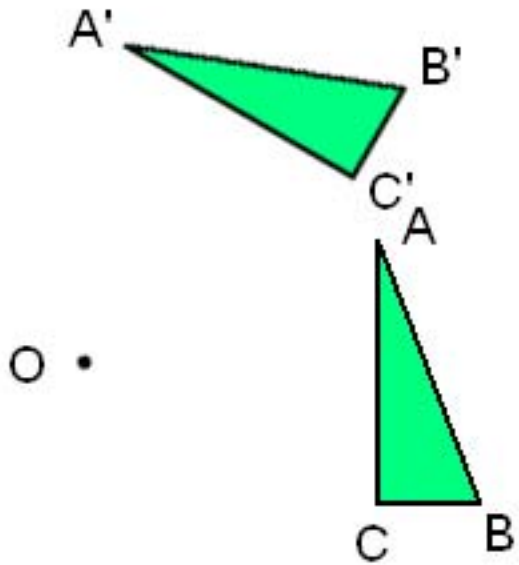

O
C
B

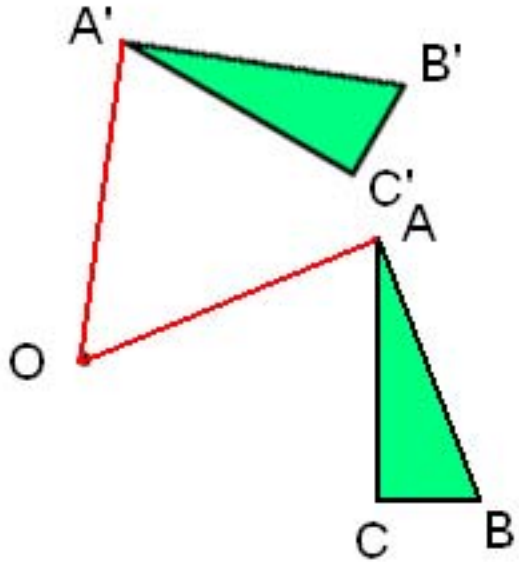

O
C
B

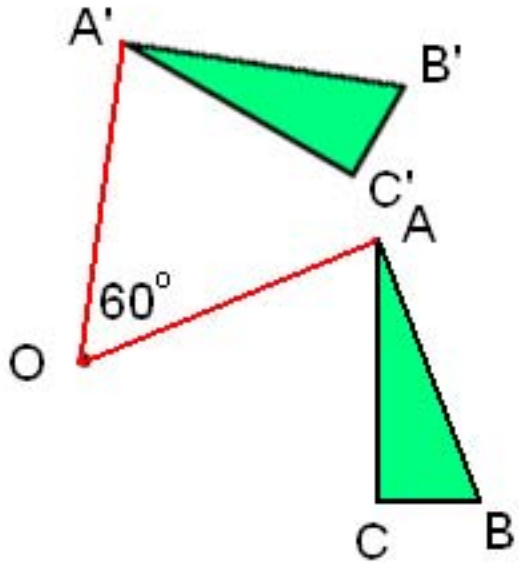

O
C
B

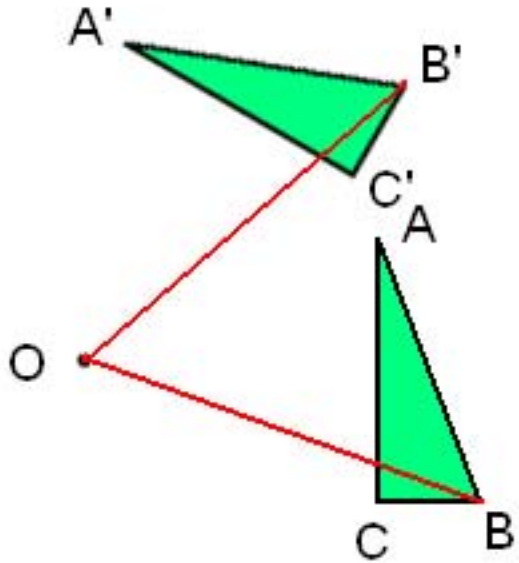

O
C
B

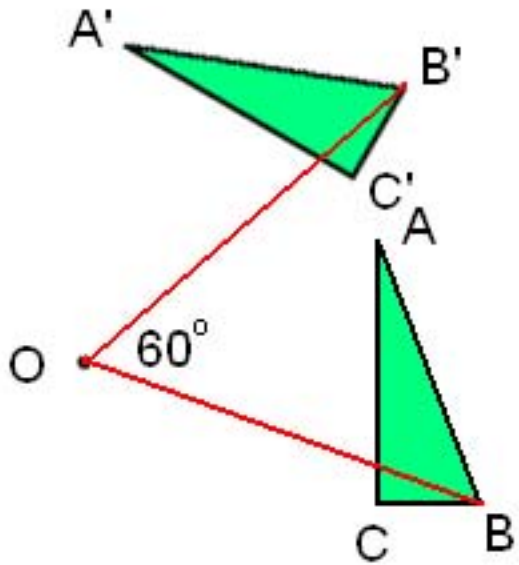

A
O
C
B

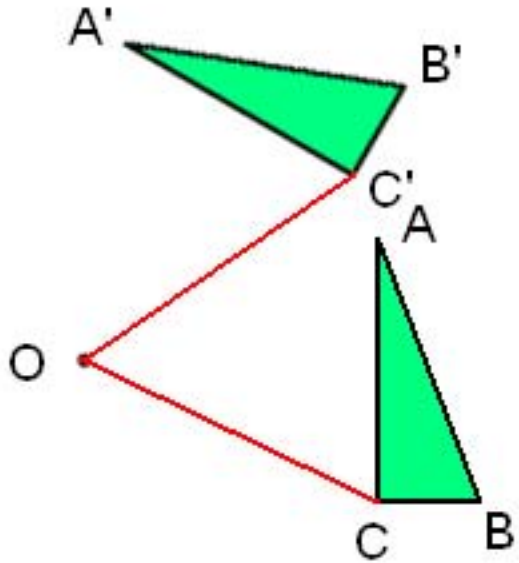

A'
B'
C'
A
O
C
B

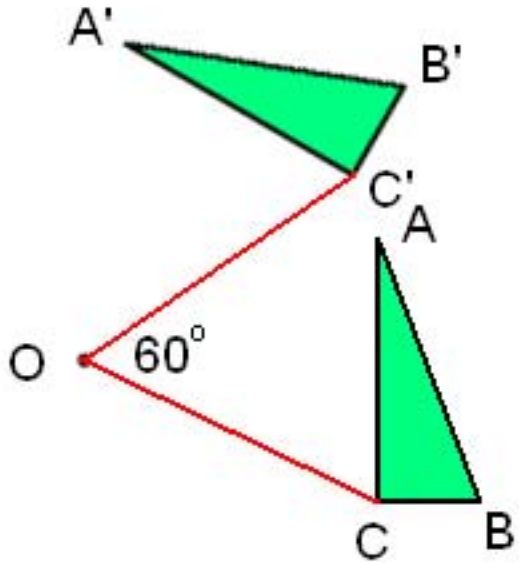

A'
B'
C'
A
O
C
B

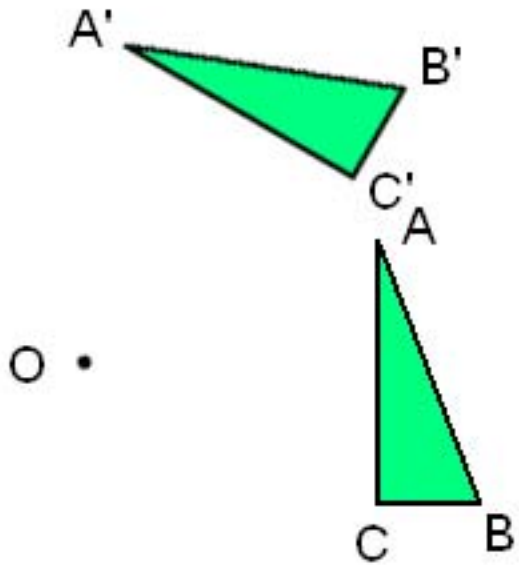

A'
B'
C'
A
60°
O
C
B

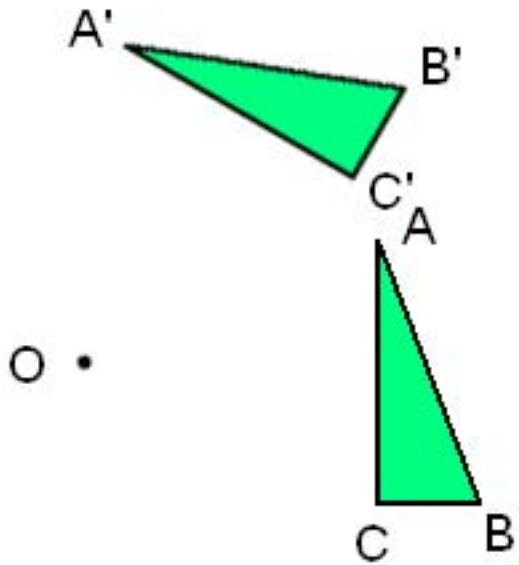

A'
B'
C'
A
O
C
B


A'
B'
C'
A
O
60°
C
B

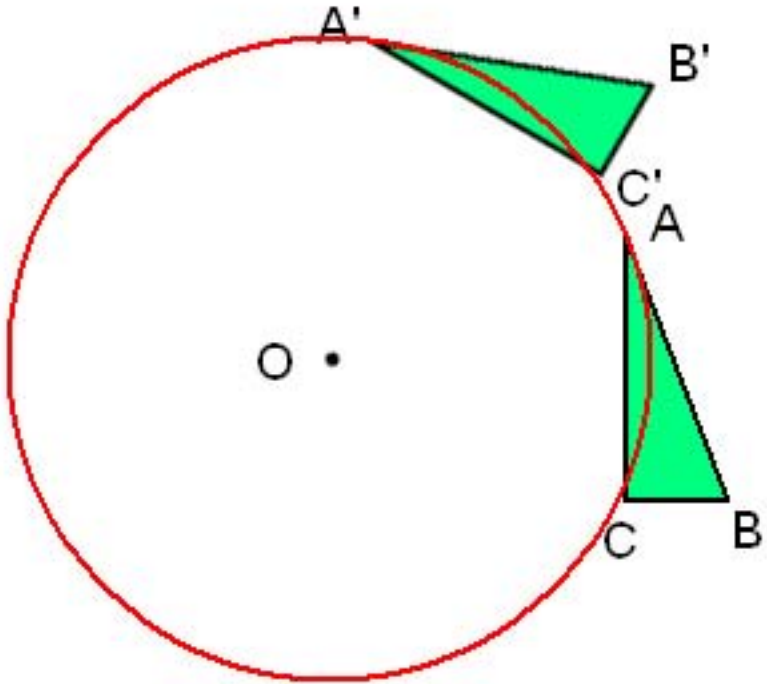

A'
B'
C'
A
O
C
B

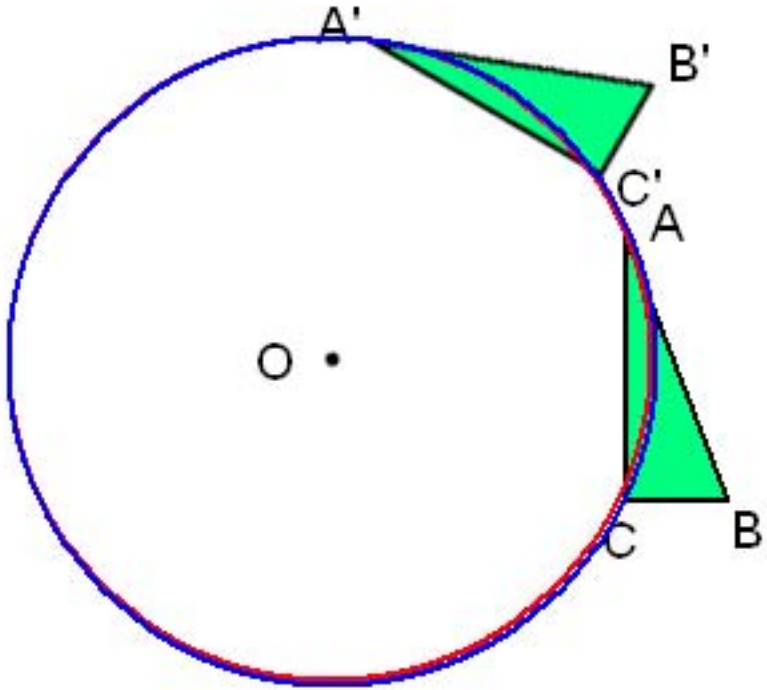

A'
B'
C'
A
O
60°
C
B

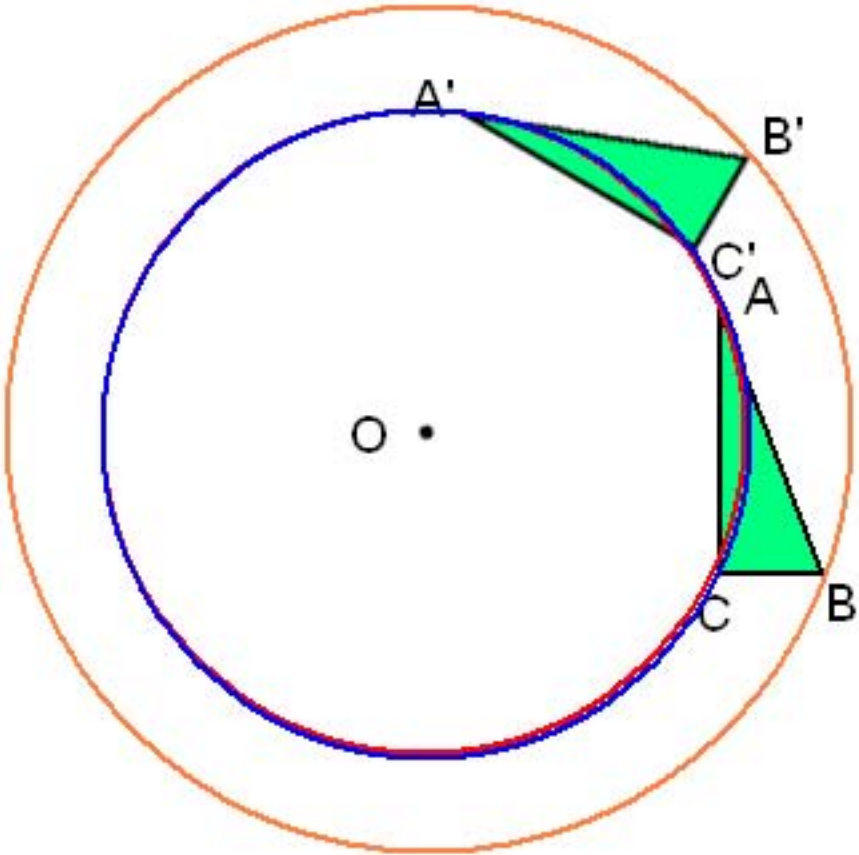

A'
B'
C'
A
O
C
B

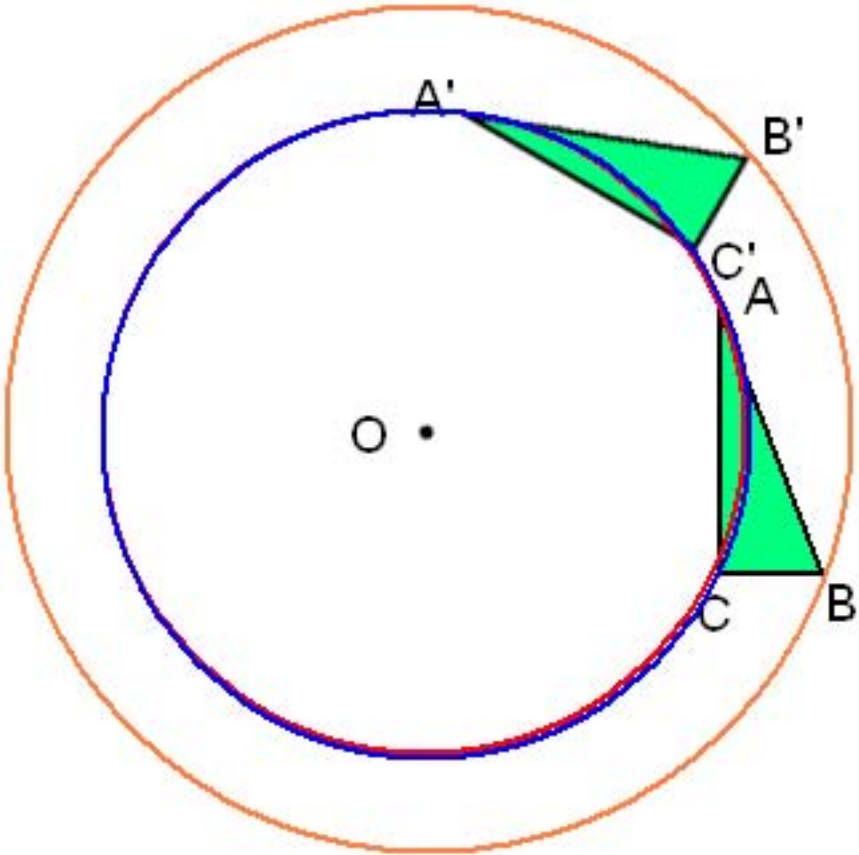


Each point has rotated through +60 degrees.

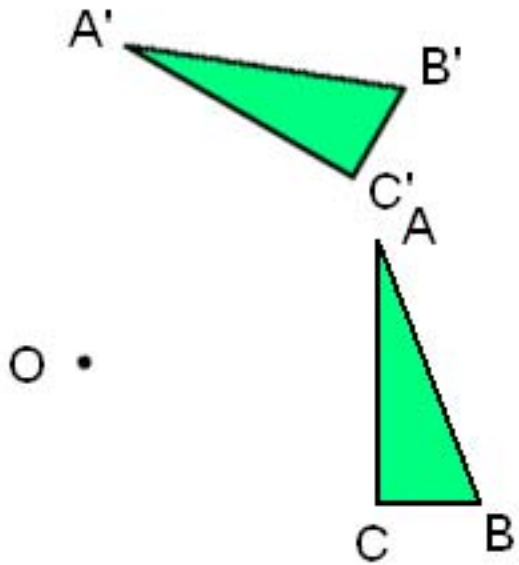

A'
B'
C'
A
O
C
B

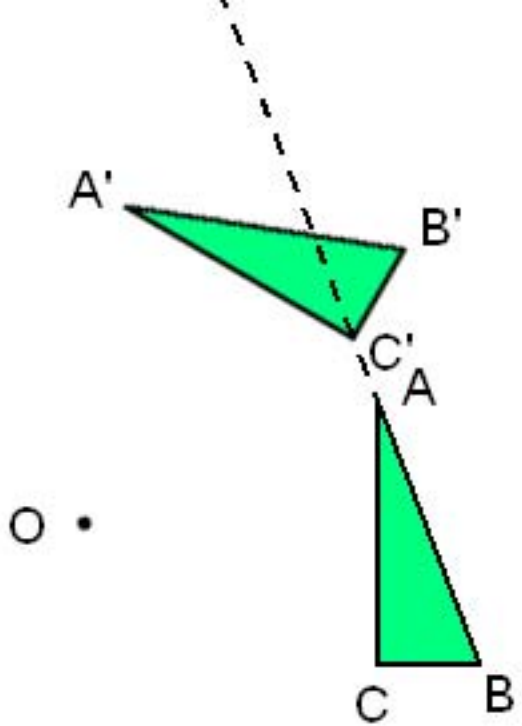

A'
B'
C'
A
O
C
B

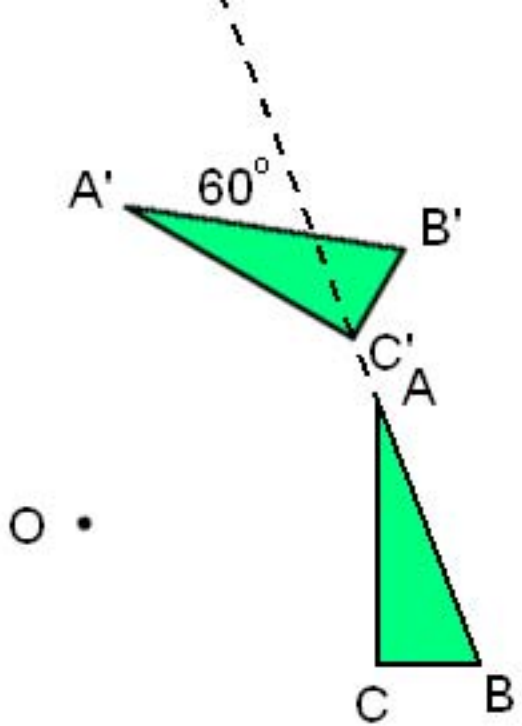

A'
B'
C'
A
O
C
B

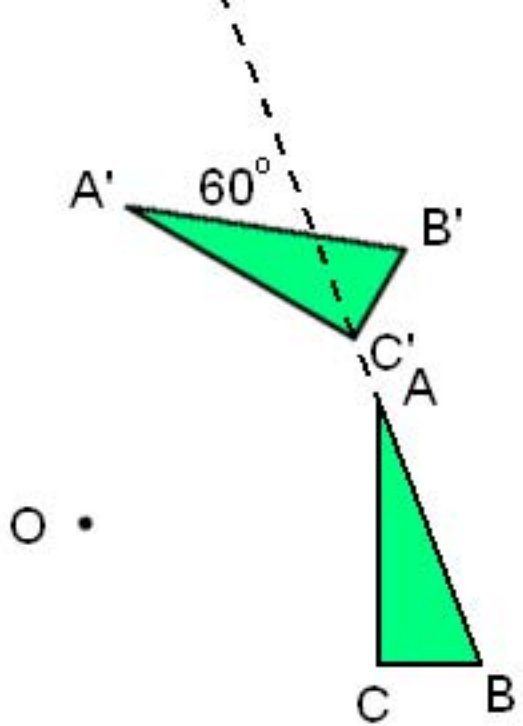


Points move along the arcs of circles centered at the center of rotation.

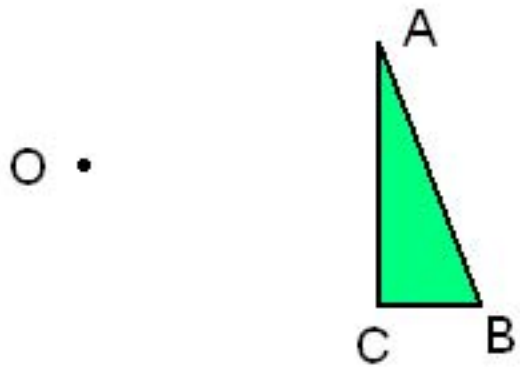

A'
B'
C'
A
O
C
B

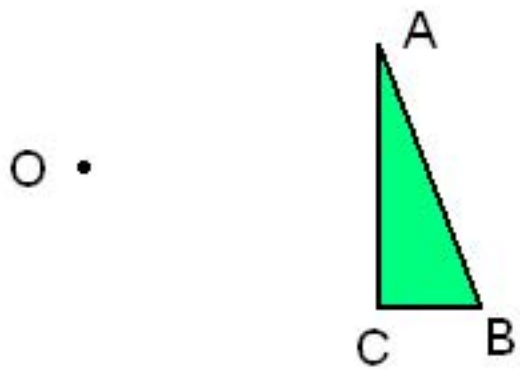

A'
B'
C'
A
O
C
B


A'
60°
B'
C'
A
O
C
B

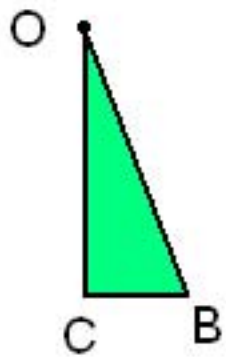


The angle between an object line (extended, if necessary) and its image is equal to the angle of rotation.


O
A
C
B

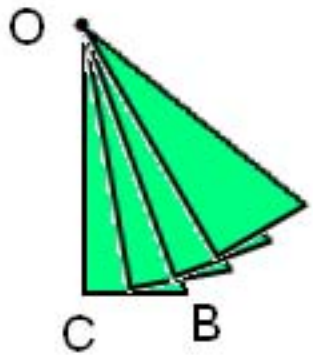


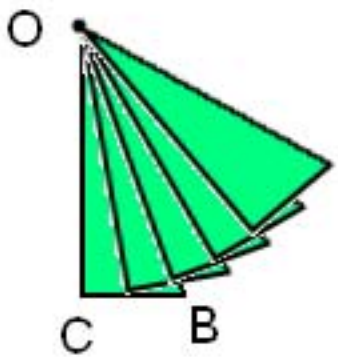
What happens when one of the verticies is the center of rotation?

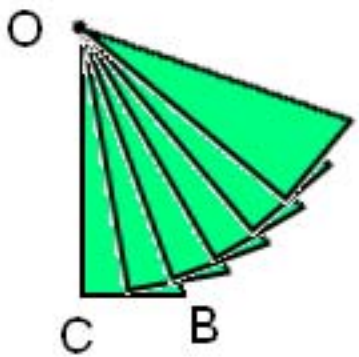

O
C
B

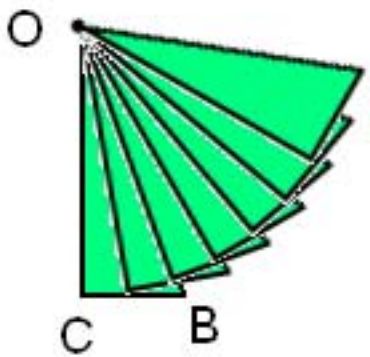

O
C
B

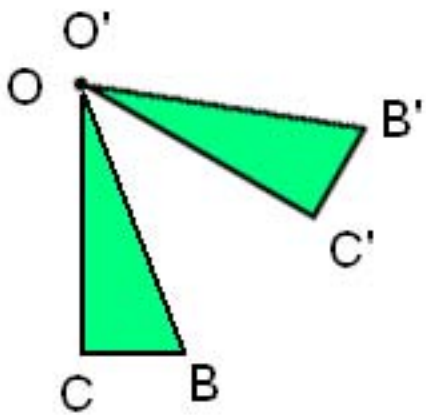

O
C
B

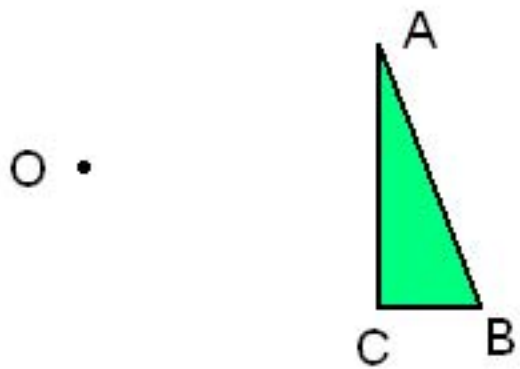

O
C
B


O
C
B

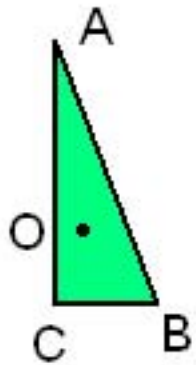

O
C
B

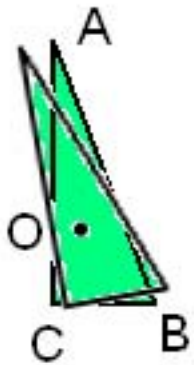

O
C
B

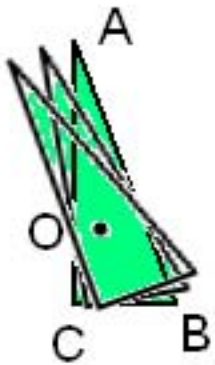

O'
O
B'
C'
C
B

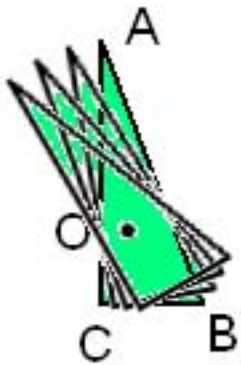


What happens when the center of rotation is inside the figure?


A
O
C
B


A
O
C
B

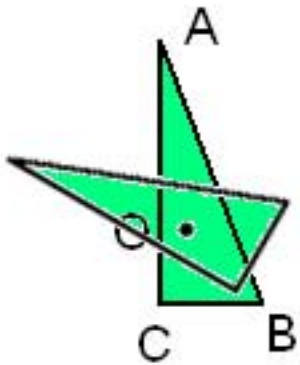

A
O
C
B

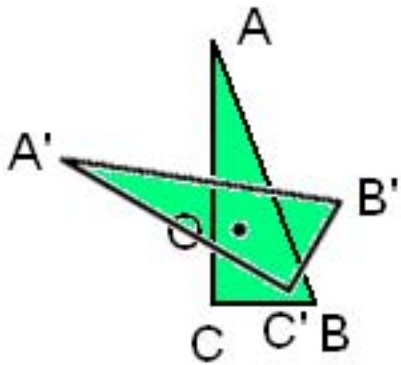

A
C
C
B


A
O
C
B


A
C
C
B


A
C
B


A
O
C
B


A
A'
B'
O
C
C'
B

Under a rotation:

Under a rotation:

- There is one fixed point called the center of rotation.

Under a rotation:

- There is one fixed point called the center of rotation.
- All other points move through the same angle around the center of rotation. This angle is called the angle of rotation.

Under a rotation:

- There is one fixed point called the center of rotation.
- All other points move through the same angle around the center of rotation. This angle is called the angle of rotation.
- Points move along the arcs of circles centered at the center of rotation.

Under a rotation:

- There is one fixed point called the center of rotation.
- All other points move through the same angle around the center of rotation. This angle is called the angle of rotation.
- Points move along the arcs of circles centered at the center of rotation.
- The angle between a line and its image (both extended if necessary) is equal to the angle of rotation.

You have reached the end of this file.

Prepared by:
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