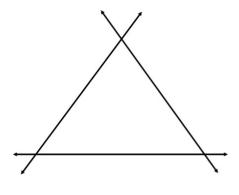
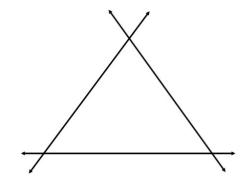
When the sides of the polygon are extended, other angles are formed. The angles outside the polygon that are



**Interior Angles** 

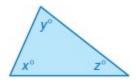


**Exterior Angles** 

## **Interior Angle Measures of a Triangle**

Words The sum of the interior angle measures of a triangle is 180°.

Algebra x + y + z = 180



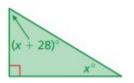
Ex:) Find the measures of the interior angles of each triangle.

Notes:

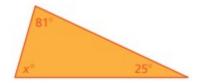
a.



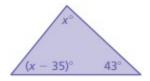
b.



a.

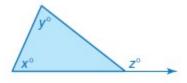


b.



## **Exterior Angle Measures of a Triangle**

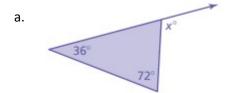
Words The measure of an exterior angle of a triangle is equal to the sum of the measures of the two nonadjacent interior angles.



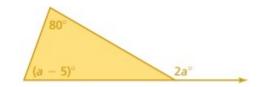
Algebra z = x + y

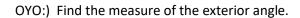
Ex:) Find the measure of the exterior angle.

Notes:

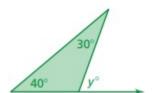


b.



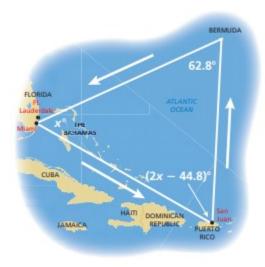


Notes:



Ex:) An airplane leaves Miami and travels around the Bermuda Triangle as shown in the diagram. What is the measure of the interior angle at Miami?

Notes:



OYO:) The Historic Triangle in Virginia connects Jamestown, Williamsburg, and Yorktown. The interior angle at Williamsburg is  $120^{\circ}$ . The interior angle at Jamestown is twice the measure of the interior angle at Yorktown. Find the measures of the interior angles at Jamestown and Yorktown.

Notes: