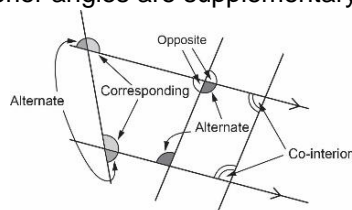


**Geometry**  
**Unit 1 Line Master 7**

# Geometric Properties and Relationships

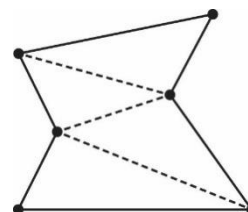
## Angles with Parallel and Intersecting Lines

- Corresponding angles are congruent.
- Alternate angles are congruent.
- Opposite angles are congruent.
- Co-interior angles are supplementary.



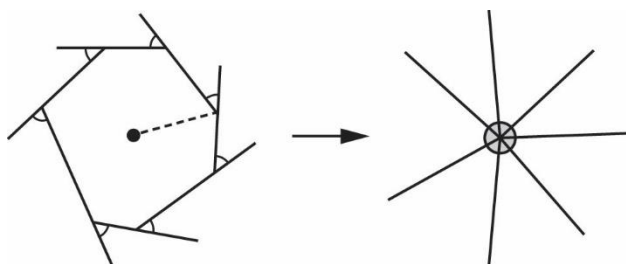
## Sum of Interior Angles in a Polygon

A polygon of  $n$  sides can be divided into  $(n - 2)$  triangles.  
So, the sum of the interior angles is  $(n - 2) \times 180^\circ$ .



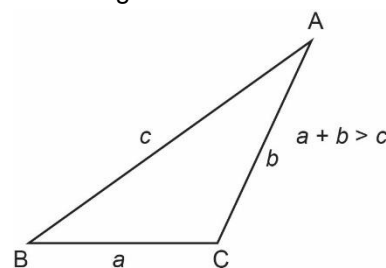
## Sum of Exterior Angles in a Polygon

The sum of the exterior angles of a polygon is  $360^\circ$ .



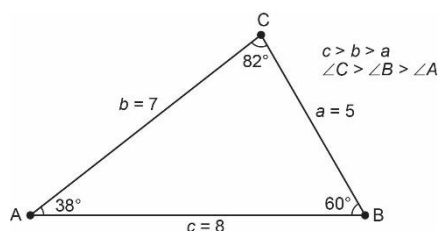
## Side Lengths of a Triangle

The sum of any two sides of a triangle is always greater than the length of the third side.



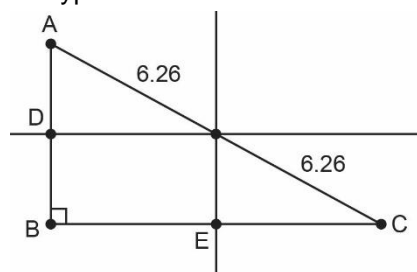
## Angles and Side Lengths in a Triangle

The relative lengths of the sides are the same as the relative measures of the angles to which they are opposite.

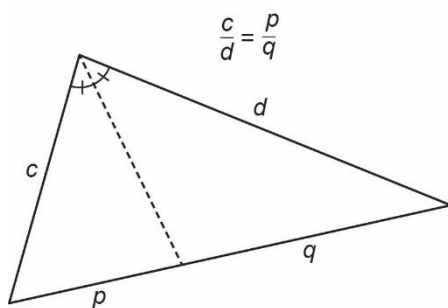


## Perpendicular Bisector in a Right Triangle

A perpendicular bisector of a leg in a right triangle bisects the hypotenuse.



## Angle Bisector in a Triangle



## Median of a Triangle

