Angle-Side Correspondence Theorem

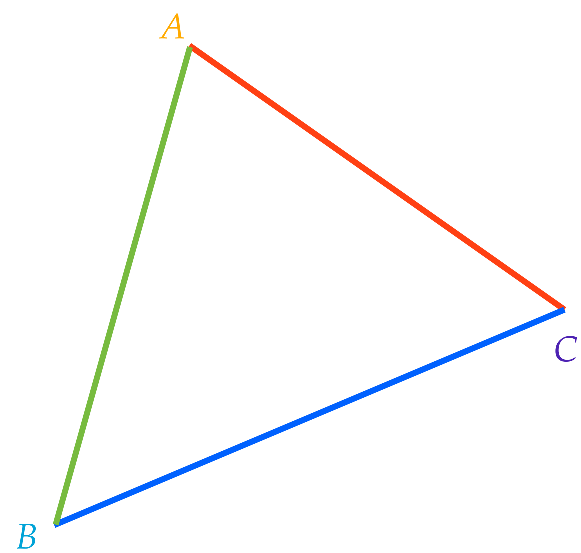
Name ______________________________

Date _________________ Period ______

Triangle

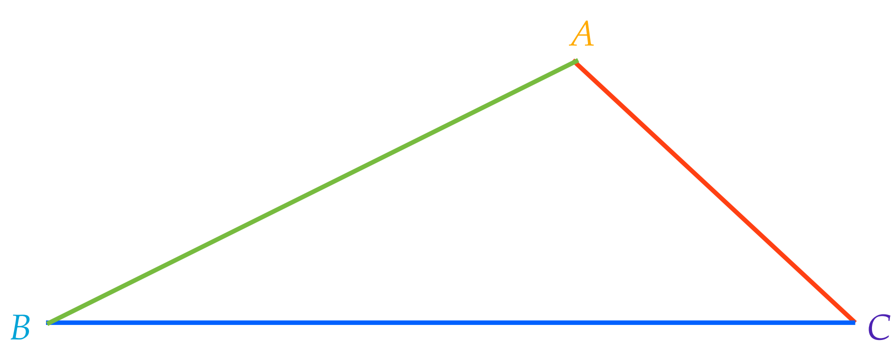
A triangle is a polygon with three sides.

3 Sides 3 Vertices 3 Angles



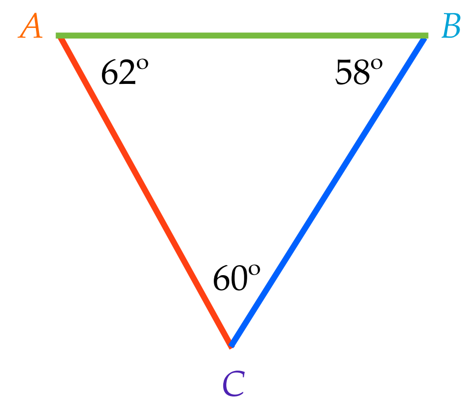
Name a Triangle using the 3 Vertices

If one angle of a triangle is larger than another angle, then the side opposite the larger angle is larger than the side opposite the smaller angle.

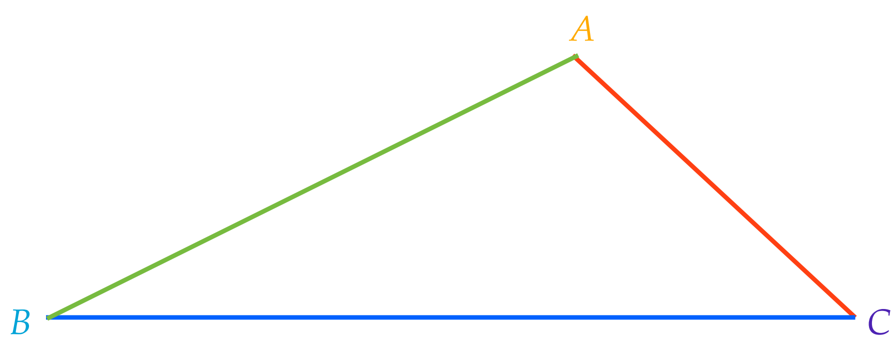


If one angle of a triangle is larger than another angle, then the side opposite the larger angle is larger than the side opposite the smaller angle.

List the sides in order from longest to shortest.

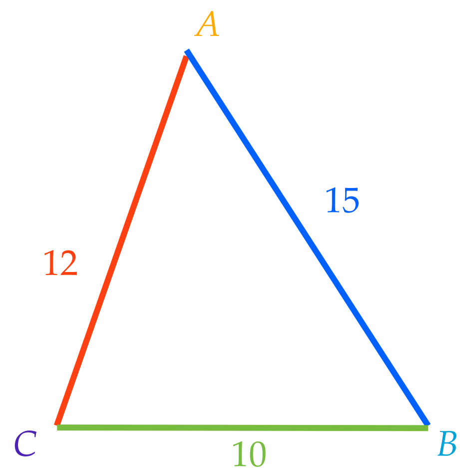


If one side of a triangle is larger than another side, then the angle opposite the larger side is larger than the angle opposite the shorter side.

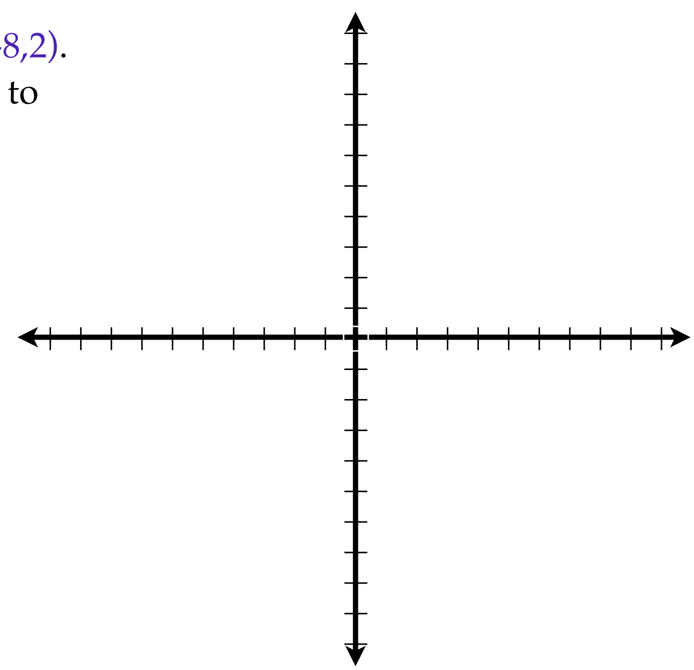


If one side of a triangle is larger than another side, then the angle opposite the larger side is larger than the angle opposite the shorter side.

Write the angles in order from largest to smallest.



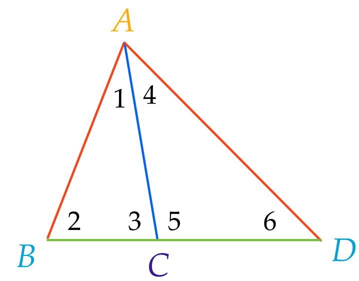
The vertices of ΔABC are $A(3,2)$, $B(4,7)$ and $C(-8,2)$. List the angles in order from greatest measure to least measure.



Statements	Reasons

Given: $\overline{AC}$ bisect $\angle BAD$

Prove: $AB > BC$



If one angle of a triangle is larger than another angle, then the side opposite the larger angle is larger than the side opposite the smaller angle.

$$m\angle A > m\angle C > m\angle B$$

$$BC > AB > AC$$

If one side of a triangle is larger than another side, then the angle opposite the larger side is larger than the angle opposite the shorter side.

$$BC > AB > AC$$

$$m\angle A > m\angle C > m\angle B$$