

# Honors Geometry

## Notes Section 4.1

### Apply Triangle Sum Properties

#### VOCABULARY

**Triangle:** \_\_\_\_\_

**Scalene Triangle:** \_\_\_\_\_

**Isosceles Triangle:** \_\_\_\_\_

**Equilateral Triangle:** \_\_\_\_\_

**Acute Triangle:** \_\_\_\_\_

**Right Triangle:** \_\_\_\_\_

**Obtuse Triangle:** \_\_\_\_\_

**Equiangular Triangle:** \_\_\_\_\_

#### THEOREMS/POSTULATES/COROLLARIES

**Theorem 4.1 (Triangle Sum)**

The sum of the measures of the interior angles of a triangle = \_\_\_\_\_

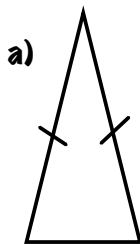
**Theorem 4.2 (Exterior Angle)**

The measure of an exterior angle of a triangle = the sum of the remote interior angles.

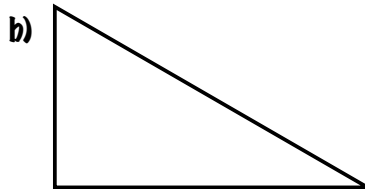
**Corollary (Triangle Sum)**

The acute angles of a right triangle are \_\_\_\_\_

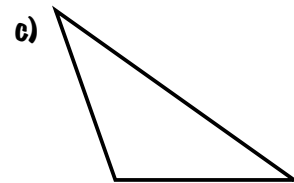
**EXAMPLE 1 Classify the triangle shape by its sides and angles.**



\_\_\_\_\_  
\_\_\_\_\_



\_\_\_\_\_  
\_\_\_\_\_



\_\_\_\_\_  
\_\_\_\_\_

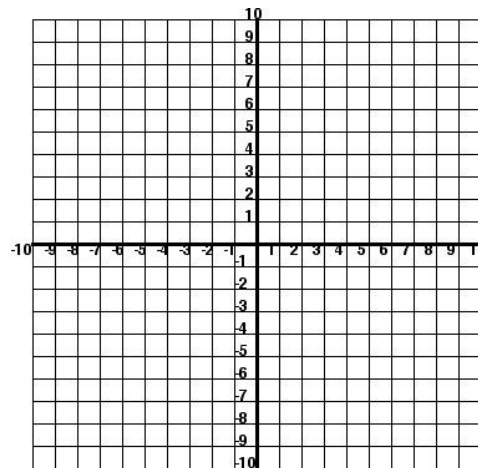
**EXAMPLE 2 Classify  $\Delta PQO$  by its sides. Then determine if the  $\Delta$  is right.**

$P(-1,2)$   $Q(6,3)$   $O(0,0)$

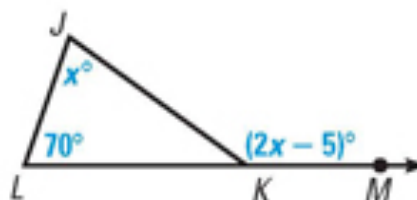
$OP =$

$OQ =$

$PQ =$



**EXAMPLE 3** Find  $m\angle JKM$ .



**EXAMPLE 4** Find the measure of each acute angle.

