1. A triangle can be classified based on angles:
   Acute Triangles          Right Triangles          Obtuse Triangles
   or number of equal sides:
   Equilateral              Isosceles              Scalene

2. The sum of the interior angles of any triangle is _______.

3. When two sides of a triangle are equal, opposite angles are equal.
   The CONVERSE is also true.

Use these properties along with those studied in Section 9.1 to determine the value of the identified angles(s) in the following diagrams. Then classify each triangle based first on the sides, then on the angle measures.

1. __________________ 2. __________________ 3. __________________
   __________________  __________________

4. __________________ 5. __________________ 6. __________________
   __________________  __________________

7. __________________ 8. __________________
   __________________
More Complicated Constructions – Involving several missing angles or multiple triangles and/or parallel lines. Find the measure of the missing angle(s), but do not classify the triangle(s).

1. 
   \[ \angle a = 63^\circ \]
   \[ \angle b = 41^\circ \]

2. 
   \[ \angle c = 71^\circ \]

3. 
   \[ \angle d = 123^\circ \]

4. 
   \[ \angle e = 36^\circ \]
   \[ \angle f = 28^\circ \]

5. 
   \[ \angle g = 62^\circ \]
   \[ \angle h = 29^\circ \]

6. 
   \[ \angle i = 51^\circ \]

7. 
   \[ \angle j = 96^\circ \]
   \[ \angle k = 80^\circ \]

8. 
   \[ \angle l = 60^\circ \]
   \[ \angle m = 40^\circ \]

HW: Section 9.2 Problems 11-22, 29-34, and the Angle Worksheet