***I HIGHLY suggest drawing a diagram to help keep track of ALL computations. Some problems on the exam will already have the triangle included. PLEASE work review on another sheet(s) of paper.***

**Solve for all the missing angles measures, side lengths, and area for the triangles below (5 pts each):**

1. A = 100°, C = 40°, c = 30
2. A = 118°, B = 22°, c = 32
3. A = 28°, b = 14, c = 8
4. A = 120°, b = 9, c = 5
5. A = 4°, b = 177, c = 160
6. A = 132°, b = 50, c = 40
7. B = 17°, a = 14, c = 9

**Use the reference chart to solve for all the missing angles measures and side lengths for the triangle(s) below (If such a triangle exist). (4 pts each)**

1. A = 70°, a = 25, b = 26
2. A = 105°, a = 23, b = 14
3. A = 84°, a = 9, b = 17

**Determine the number of triangle solutions given the information below: (2pts each)**

1. A = 57°, a = 11, b = 17
2. A = 70°, a = 6, b = 8
3. A = 37°, a = 27, b = 32
4. A = 150°, a = 6, b = 8
5. A = 76°, a = 5, b = 20
6. A = 65°, a = 55, b = 57

**Determine the area of the triangles given the information below. (4pts each)**

1. A = 99°, b = 14, c = 14
2. A = 127°, b = 13, c = 9
3. a = 7, b = 9, c = 15
4. a = 5, b = 12, c = 13

**Solve the following. (4pts each)**

1. The center of the Pentagon in Arlington, Virginia, is a courtyard in the shape of a pentagon. The pentagon could be inscribed in a circle with a radius of 300 feet. Find the area of the courtyard.
2. The side of a rhombus is 15 cm long, and the length of the longer diagonal is 24.6 cm. Determine the area of the rhombus.

**MC 10 questions at 2 points each (Can and will include problems from previous test)**