First, complete the following problems from section 11.1 of the textbook: 16, 17, 18, 34.

Then, using your compass and protractor, construct those triangles described below that can be constructed. After you have completed constructing the triangle, measure and label the lengths of all sides and all angles of your figure. If a triangle cannot be constructed, explain why.

1. Triangle ABC with sides AB = 1.5 inches, BC = 2.75 inches, and AC = 5 inches.

2. Triangle DEF with DE = 1.75 inches, EF = 2.25 inches, and angle DEF = 45 degrees.

3. Triangle JPS with JP = 3 inches, angle J = 37 degrees, and angle P = 75 degrees.

4. Triangle ABC where AB = 2.5 inches, BC = 1.5 inches, and angle A = 30 degrees. There are two correct answers for this question. Find both answers and label the measures on both triangles.

5. A triangle with one angle of 50 degrees, one angle of 30 degrees, and an included side of length two inches. Construct a second triangle with the 2 inch side not included between the 50- and 30-degree angles. Are your two triangles congruent?