**Geometry U 2-3 Conditions for Congruence Put all work and responses on another paper.**

1] Say whether each pair of triangles is congruent. If a pair is congruent, name the postulate that guarantees the congruence.

[a] [b]





2] [a] How many triangles are possible, given two sides are

 1 inch and 0.75 inches and they include a 59o angle?

 [b] Is this an example of a congruence postulate? If so,

 which one? Justify your response.



3] [a] How many triangles are possible, given two sides are

 1 inch and 0.75 inches and a 59o angle is adjacent to

 the 1-inch side but not the 0.75-inch side?

 [b] Is this an example of a congruence postulate? If so,

 which one? Justify your response.

4] [a] How many triangles are possible with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 these three segments? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

 [b] Copy these three segments to form

 a triangle. List the length of each side.

5] Copy / BAC; then construct its

 perpendicular bisector.

6] Find the measure of / BAC.

7] Construct a regular hexagon.

8] / Q is 1.5 times the measure of / R. [a] Suppose m/ R = 28o; find m/ Q.

 [b] Suppose m/ Q = 36o; find m/ R.

9] \*Challenge: Draw an obtuse triangle; then construct the perpendicular bisectors of all three sides.

 \*Explain what you notice: be specific.