Triangles and Quadrilaterals , Math 181 , Informal Geometry

1. How many lines of symmetry does an equilateral triangle have? (give a sketch)
How many lines of symmetry does an isosceles triangle have?(give a sketch)

2. Using 30-60-90 triangles, can you form (answer Y or N)
a. a kite
b. a rectangle
c. a rhombus?

3. Using a right triangle (not 30-60-90 triangles), can you form (answer Y or N)
a. a kite
b. a rectangle
c. a rhombus?

4. Using acute triangles, can you form (answer Y or N)
a. a kite
b. a rectangle
c. a rhombus?

5. Use the 30-60-90 triangles to form a large square with a square hole in it. There are two different ways to do this. Sketch both solutions.

6. Can you construct these squares using any right triangle? Acute triangles? Try to give a convincing explanation why or why not.