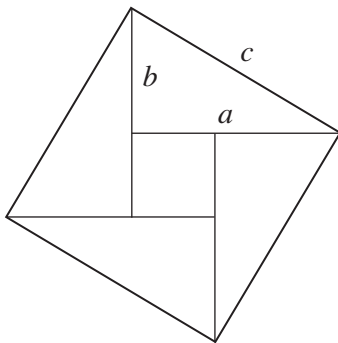**Quiz 1. Math 10-270. January 25, 2012.   Name**

Each question will receive a maximum of 10 points. Your score will depend on the accuracy and completeness of the answer. *Much is asserted, both valid and not, about the issues below, about the Parthenon in particular. If your answer involves assertions that are not in the text, I ask that you provide your source.*

1. Describe the remarkable architectural features of the Parthenon.

2. The four right triangles in the figure below are congruent. The sides of each of them have lengths a, b, and c respectively. Determine the size of the inner square and use the figure to verify the Pythagorean Theorem.

3. Explain with the aid of carefully drawn diagrams how an angle of 24° can be constructed with a straightedge and compass.

Explain (again with a carefully drawn diagram) why a regular 15-gon is constructible.