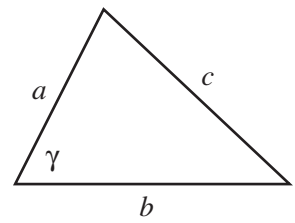


Quiz 1. February 1, 08. Name

1. Consider the keystone of a stable semicircular Roman arch. Draw a diagram that represents the forces acting on the keystone and explain what these forces are.

2. Verify the Law of Cosines  $c^2 = a^2 + b^2 - 2ab \cos \gamma$  for the acute triangle:



3. Describe the various strategies that the builders of the Pantheon used to deal with the horizontal thrusts that the dome of the Pantheon generates.