

Mathematics 2260H – Geometry I: Euclidean geometry

TRENT UNIVERSITY, Winter 2014

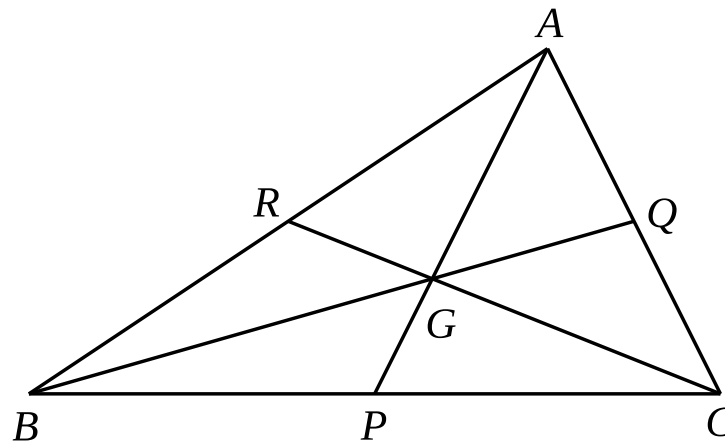
Assignment #5

Yet another triangle centre ...

Due on Friday, 21 March, 2014.

A *median* of a $\triangle ABC$ is a line from a vertex to the midpoint of the opposite side.

1. Given $\triangle ABC$, show that the medians from each of the vertices of the triangle are concurrent (*i.e.* meet at a single point). [10]



NOTE: The point at which the three medians meet is the triangle's *centroid*. We have now defined four different centres of a triangle, each of which is traditionally labelled by a different letter. The incenter is usually called I , the circumcentre O , the orthocentre H , and the centroid G .