

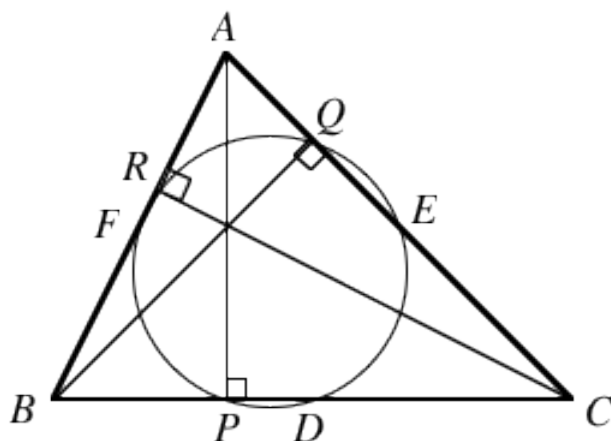
Mathematics 2260H – Geometry I: Euclidean geometry  
TRENT UNIVERSITY, Winter 2012

Assignment #10

The ~~six~~ nine-point circle

Due on Thursday, 29 March, 2012.

Assignment #9 dealt with the six-point circle: given  $\triangle ABC$ , the midpoints of the sides and the feet of the altitudes of the triangle are all on the same circle.



1. Suppose that  $O$  is the orthocentre of  $\triangle ABC$ . Show that the midpoints of the line segments  $AO$ ,  $BO$ , and  $CO$  are also on the six-point circle. [10]

NOTE: These three additional points are the reason the six-point circle is usually referred to as the nine-point circle nowadays.