

Mathematics 2260H – Geometry I: Euclidean Geometry

TRENT UNIVERSITY, Winter 2023

Assignment #9 – Cevians

Due on Friday, 24 March.

A *cevia*n of a triangle is a line joining a vertex to a point on (an extension of) the opposite side.

1. Given a triangle, show that if a cevian of a triangle is any two of
 - i.* a median of the triangle,
 - ii.* the bisector of an internal angle of the triangle, or
 - iii.* a perpendicular bisector of a side of the triangle,then it is also the third, and that the triangle is isosceles. [10]