

Mathematics 2260H – Geometry I: Euclidean geometry

TRENT UNIVERSITY, Winter 2014

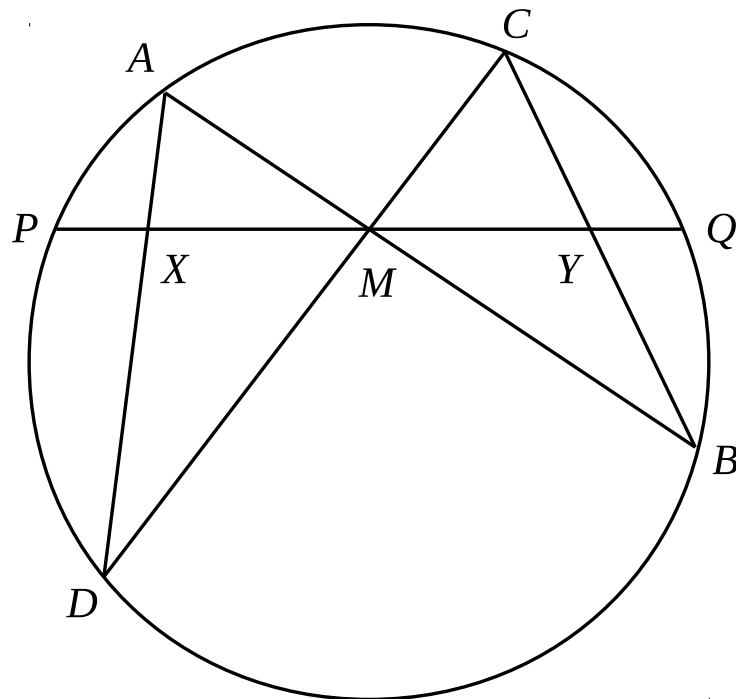
Assignment #6

The Flutterby Butterfly Theorem

Due on Friday, 4 April, 2014.

One more go at circles and chords:

Butterfly Theorem: Suppose PQ is a chord of a circle, M is the midpoint of PQ , AB and CD are two other chords of the circle that pass through M , and suppose AD and BC meet PQ in X and Y respectively. Then M is the midpoint of XY .



1. Prove the Butterfly Theorem. [10]

NOTE: The Butterfly Theorem seems to have been so named because part of the diagram resembles a butterfly.