

Problem Set 4

Please complete and submit **any ONE** of the following problems. The deadline for submission is January 7 by 11:59 PM. Send your submission by email to benjamin.fedoruk@ontariotechu.ca with the header "[Surname] Problem 4".

1. Using the construction method for the regular pentagon from Lecture 4, determine the centre point of the outcircle passing through all 5 points of the regular pentagon (pictured in blue in the video). Explain where the coordinates could be derived from.
2. Construct the incircle of an arbitrary quadrilateral. Show all steps.
3. Construct the incircle of an arbitrary pentagon. Show all steps.
4. Construct the outcircle of an arbitrary triangle. Show all steps.
5. Construct a regular decagon (10-gon). Show all steps.