

## Final Assessment

Please complete and submit **any ONE** of the following two projects. The deadline for submission is January 7 by 11:59 PM. Send your submission by email to [benjamin.fedoruk@ontariotechu.ca](mailto:benjamin.fedoruk@ontariotechu.ca) with the header “[Surname] Final Assessment”.

**OPTION A:** Construct a regular heptadecagon (17-gon). Give a hypothesis as to why a 17-gon is constructible but a 7-gon is not. Note: This problem would be exceedingly challenging to derive on your own; please feel free to use any resource you wish. However, you should be clear about your steps, being sure to show all steps in the construction. You may submit a GGB file or a clear photo of your straightedge and compass sketches by hand. You should also attach your hypothesis as a standard text format (e.g., PDF, DOCX, etc.)

**OPTION B:** Write an essay outlining **ONE** interesting historical development in the vast history of straightedge and compass constructions. Your essay should be a minimum of one page, maximum of two pages. The font should be single-spaced, Times New Roman at 12-point font. The paper should be written entirely by you – a human (i.e., not written by an LLM). Note: You do not need to replicate any proofs for this paper, unless you feel compelled to. Make sure that your paper is focused. If you have trouble focusing, pick one of the four historical problems – trisecting an angle, squaring the circle, doubling the cube, or constructing a regular  $n$ -gon.

*Once you have completed and submitted your chosen problem, provided you have also submitted your selections from all problem sets, you will have successfully completed this mini-course. Congratulations!*