

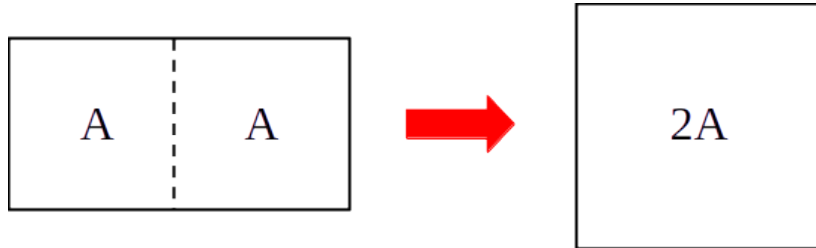
Mathematics 2260H – Euclidean Geometry

TRENT UNIVERSITY, Winter 2025

Assignment #5

Right Quadrilaterals

*Due on Friday, 14 February.**



1. Given a rectangle whose long sides are exactly twice the length of the short sides, and using nothing but Euclid's Postulates (Extended!) and Propositions I-1 through I-45, show that there is a square with the same area as the rectangle. [10]

NOTE. This is pretty easy once you get the right idea... According to Plato, Socrates knew how to do this. If philosophers can do it, so can you!

For One Who Loves An Engineer

Sing not to me of silicon chips
The chocolate kind are sweeter
But sweeter still would be your lips –
Put down that voltage meter!

A jug of wine (viscosity 3),
Loaf of bread (shear modulus 7)
But me you cannot quantify –
Oh, glory be to heaven!

Miriam Nadel

* Please submit your solutions, preferably as a single pdf, via Blackboard's Assignments module. If that fails, please submit them to the instructor on paper or via email to sbilaniuk@trentu.ca as soon as you can.