

# MATH 402 Homework 1

Due Friday 2/2/18

From Hvidsten's *Geometry (with Geometry Explorer)*:

- (1) (10 pts.) Solve 2.1.1 and 2.1.2
- (2) (5 pts.) Exercise 2.1.4
- (3) (10 pts.) Solve Exercise 2.1.7
- (4) (10 pts.) Solve Exercise 2.1.10
- (5) (15 pts.) For the following exercise, you may use any of Propositions 1-34 in Euclid's Elements Book 1: A *rhombus* is a four sided figure whose sides are all equal. Show that the diagonals meet at right angles and that the four small triangles are congruent to each other. (Hint: SAS and SSS may be helpful.)