# Math 31AH Fall 2017 Written Homework 3, due 10/20/2017 in HW box in the basement of AP\&M by 4 pm 

## 1 Reading

Finish Reading Sections 1.4-1.5 of the text, and begin to read Section 4.1.

## 2 Exercises to submit on Friday 10/20

### 2.1 Exercises from the text

Write out each answer as a careful proof, in full sentences.
Section 1.4: \#8, 10, 22, 30, 34, 35
Section 1.5: \#2, 4
Suggestion for $1.5 \# 4$ : do a rotation to reduce to the case that the vector $\vec{x}$ points along the positive real axis. In this position the formula for the signed area of the parallelogram is simpler.

### 2.2 Additional exercises not to be handed in

These are some other good exercises from these sections if you want to think about more problems for your own practice. Do not hand these in.
Section 1.4: \#7, 13, 14, 17, 25, 26, 27, 30, 36
Section 1.5: \#1

