

## Math 242 - Homework 3

Due Thursday, September 18

### Exercises from the Book

- Chapter 1.4# 1, 3, 9, 16
- Chapter 1.5# 5, 6, 7, 12, 13, 15, 19

### Additional Exercises

1. Is the line through  $(-4, -6, 1)$  and  $(-2, 0, -3)$  parallel to the line through  $(10, 18, 14)$  and  $(5, 3, 4)$ ?
2. The lines  $(1, 2, 3) + (1, 1, 0)t$  and  $(4, 4, 4) + (1, 0, 1)s$  both intersect at  $(3, 4, 3)$ . Find a third line that does so perpendicular to the other two.

*Remember to check back here to see if there are additional problems later.*