M561 Problem Set Number 3

1. Problems 6.1, 6.4, 6.5

2. Problems 7.1, 7.2, 7.5

3. Give an example of a non-orthogonal projector in the plane. Specify the range of the projector and give an example of projecting a point in the plane onto this range. What is the orthogonal complement? Provide a diagram.