due Wednesday, December 8 (the last day of class)

1. Chapter 9, Exercise 2.3. \textit{(subspaces of }\mathbb{C}^2\text{)}

2. Chapter 9, Exercise 4.6. \textit{(conjugacy classes in }SO_3\text{)}

3. Chapter 9, Exercise 5.1. \textit{(self-crossings of a one-parameter group)}

4. Chapter 9, Exercise 5.7. \textit{(1-parameter groups in triangular matrices)}

5. Chapter 9, Exercise 6.9. \textit{(vector cross product)}

6. Chapter 9, Exercise M.1. \textit{(conjugacy classes in }SL_2\text{)}