1. (5 points) Prove that 5 divides $n^5 + 4n$ for every positive integer $n$. *(Hint: one way is to use the Division Algorithm)*

2. (5 points) Exercise Set 1.1, # 9

3. (5 points) Exercise Set 1.2, # 26 *(There is a hint after Appendix E of the book.)*

4. (5 points) Exercise Set 1.2, # 28

5. (5 points) Exercise Set 1.3, # 44 *(Hint: one way is to use Proposition 1.11)*