189-235A: Basic Algebra I

Assignment 1

Due: Wedday, September 11

Appendix B: 9, 14, 20, 27, 28, 33.

Appendix C: 9, 13.

9. Evaluate the complex numbers $(1+i)^{64}$ and $(1+\sqrt{3}i)^{72}$.

10. Prove that $\sum_{k=0}^{n}\binom{n}{k} = 2^n$, and that $\sum_{k=0}^{n}(-1)^k\binom{n}{k} = 0$, using the binomial theorem.