MAT 142
Problem Set #3

due in class on February 10, 2005

1. Apostol, section 5.11 # 11–20, 25
2. Apostol, section 6.9 # 16–26, 34
3. Prove that for any positive integer, n, $\ln x^n = n \ln x$. Prove that for any rational number, r, $\ln x^r = r \ln x$.