

Math 104 Homework 10 (Vaintrob)

Due Tuesday, 4/16

1 26.2

2 26.3

3 26.4

4 26.5

5 28.1

6 Extra Credit: 28.15

7 Added problems about the binomial theorem:

(a) Let $f(x) = 1 + x + x^2/2 + x^3/6$. Compute $f(x + 1)$ using the binomial theorem.

(b, extra credit) Compute e^{x+y} using $e^x = \sum_{n=0}^{\infty} \frac{1}{n!} x^n$ and the formula for binomial coefficients $\binom{n}{k} = \frac{n!}{k!(n-k)!}$.