Math 262 Reading Guide

Section 2.7

NAME

Read Section 2.7 and answer the following questions. *Hand in this worksheet at the the next class.*

1. What is the k**th moment** of a random variable? How is it different from the k**th moment about the mean**?

2. How are the mean, variance, and skewness coefficient of a random variable related to the moments of the random variable?

3. What is the definition of the **moment generating function (mgf)** of a discrete random variable?

4. What is the moment-generating function of a Bernoulli random variable? (*Hint*: see Example 2.46)

5. What does the MGF Uniqueness Theorem tell us?

6. How can $E(X^r)$ be obtained from the moment-generating function of X?