

# Math 262 Reading Guide

Sections 2.1 and 2.2

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NAME

Read Sections 2.1 and 2.2, and answer the following questions. *Hand in this worksheet at the next class.*

1. What is the definition of a **random variable**?
2. Are the random variables in Examples 2.1 and 2.2 **Bernoulli random variables**? Why or why not?
3. What is the difference between **discrete** and **continuous** random variables?
4. What information is provided by the **probability mass function (pmf)** of a random variable  $X$ ?
5. What information is provided by the **cumulative distribution function (cdf)** of a random variable  $X$ ?
6. In Example 2.11, note that  $F(8) - F(4) = p(8)$ . Why is this? What is the meaning of the quantities  $F(8)$ ,  $F(4)$ , and  $p(8)$ ?