RECITATION
DISCRETE PROBABILITY DISTRIBUTIONS
AND THE BINOMIAL DISTRIBUTION

First:
Collect homework due today.
Handout homework solutions.
Review one or more homework problems, as needed.

Then:
Explain difficult concepts from the lecture and do additional problems.

Exercise:
In the following game, there is a one in 4 chance of winning $80; a one in 4 chance of losing $100; and a one-half chance of coming out even. How much would you be willing to pay to play?

V_i (Dollar Value)	$P(V_i)$
-$100	1/4
0	1/2
+$80	1/4

E(V) = -$5 [-$100 (1/4) + $0 (1/2) + $80 (1/4)]

(1) Suppose 20% of the students at a well-known college in NYC are business majors. A researcher selects a sample of 6 students from this college, what is the probability that none of the selected students are business majors?

Answer: .2621

(2) Forty percent of people above the age of 80 have Alzheimer's disease. A researcher investigates the incidence of Alzheimer's disease in a certain island in the South Pacific where people eat a certain kind of fish every day. She takes a random sample of 30 people above the age of 80. What is the probability of finding that exactly 3 people have Alzheimer's disease?

Answer: .000266