1. 58% of undergraduates at College A are female. A student committee is formed by randomly selecting 15 students. For this population, the probability of getting x number of females on a committee of 15 is given below.

x	$P(x)$
0	0+
1	0+
2	0+
3	0.003
4	0.011
5	0.034
6	0.077
7	0.138
8	0.190
9	0.204
10	0.169
11	0.106
12	0.049
13	0.016
14	0.003
15	0+

(a) Find the probability of 5 females on a committee of 15 people from this school.

(b) Find the probability of having 5 or fewer females on a committee of 15 people from this school.

(c) Which probability (a) or (b) is relevant for determining whether 5 females is a significantly low number of females on a committee of 15?

(d) Is 5 a ***significantly low*** number of females to have on a committee of 15 people from this school?

(e) Based on the results, would you suspect that the committee was not randomly chosen (and perhaps females discriminated against)? Explain.

2. A manager of a small consulting firm keeps a daily log of the number of referrals the firm receives. After several years, he organizes the data into the following probability distribution.

x	$P(x)$
0	.25
1	.35
2	.15
3	.15
4	.10

(a) On any given day, what is the most likely number of referrals?

(b) What is the mean?

(c) If someone asked you how many referrals to ***expect*** in one day, what would you answer?

(d) What is the probability that the firm will get at least 2 referrals?

(e) What is the probability that the firm will get fewer than 4 referrals?

(f) What is the probability that the firm will get at most 4 referrals?

(g) Would 3 referrals be a significantly high number of referrals?

(h) Use the Range Rule of Thumb to determine the number of referrals that would be considered significantly high or significantly low number of referrals.

Homework: Section 5.1, p. 195: #5, 7-13(odd), 15-25(odd), 27, 29