Ex 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+

What is the probability of having 5 females on the committee?

← But where did these probability values (2nd column) come from?

(a). If 1 student is selected from the *population*, what is the probability of selecting a female?

If 1 student is selected from the *population*, what is the probability of selecting a male?

(b). Suppose the college has 4000 students. If you randomly select 15 students are the events (1) independent, (2) dependent, or (3) technically dependent, but can be treated as independent?

Why is that helpful? If two different students are selected, what is the probability that both are female?

(c). What is the probability of selecting 5 females and 10 males in the following order?

$P(FFFFFMMMMMMMMMM) =$

(d). What is the probability of selecting 5 females and 10 males in the following order?

$P(FMMMFMFMMFFMMMM) =$

(e). How many possible orders can 5 females and 10 males be selected?

(f). What is the probability of selecting 5 females and 10 males in any order?