FIRST GRADERS	SECOND GRADERS	THIRD GRADERS	FOURTH GRADERS	FIFTH GRADERS	SIXTH GRADERS
18	18	15	17	13	19

In total, there are 100 kids.

What variable is used here? What are the values of that variable?

If someone is selected (at random) from this population, what is the probability that the person will be a second grader or a third grader?

What's the calculation?

There is a 50 percent chance that Susan will enroll at State University. If she does go to State, there is a 60 percent chance that she will make the basketball team as a walk-on.

What is the probability that she will go to State University and play basketball?

What is the conditional probability in this problem?

Why do we use the general disjunction rule?

GENDER

DEGREE STATUS

	men	women
no college degree	60%	60%
college degree	40%	40%

the special disjunction rule: $P(M \text{ or } F) = P(M) + P(F)$

GENDER

men   women

DEGREE STATUS

no college degree

college degree

the general disjunction rule: **P**(M or ND)
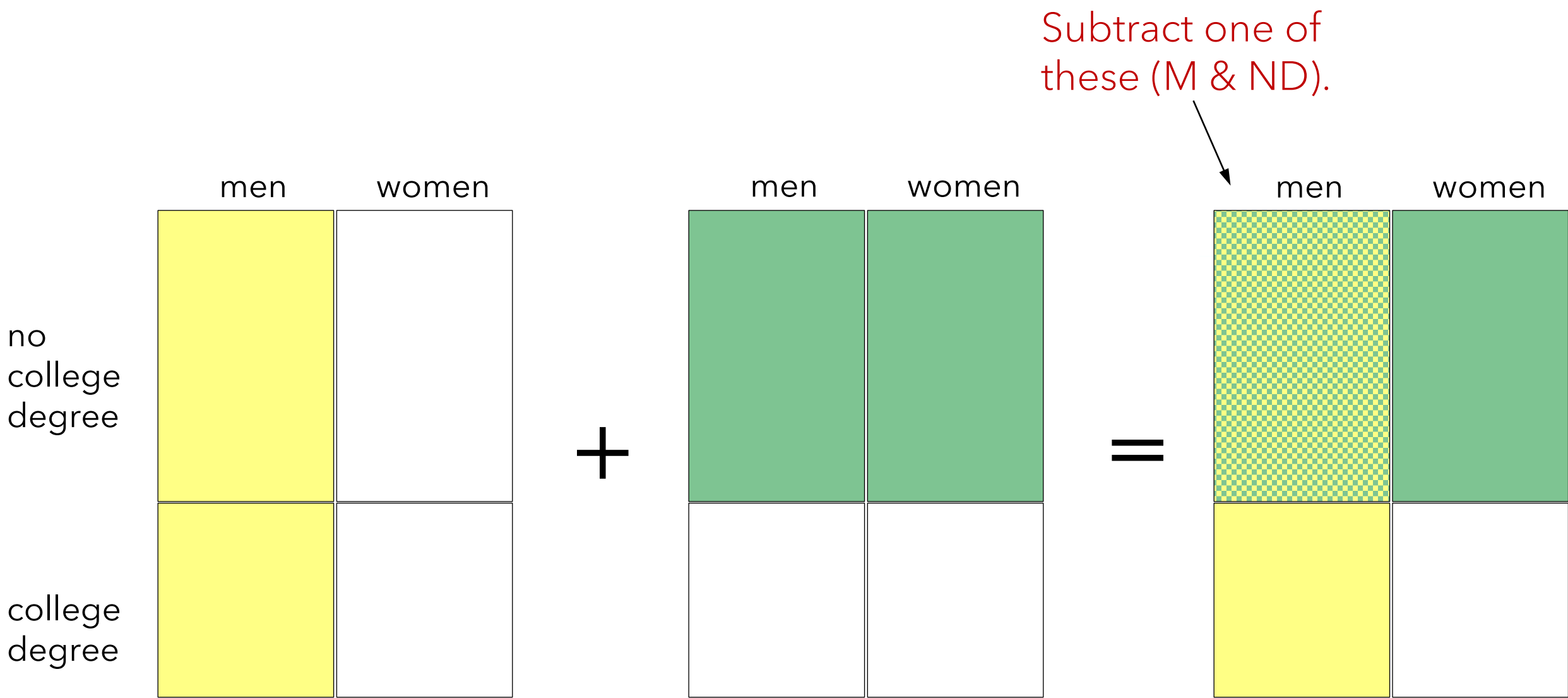
Subtract one of these (M & ND).

Diagram this population.

67 percent of the population are college graduates; 33 percent are not college graduates. 80 percent of the population is employed, and 20 percent is not. 90 percent of the college graduates are employed, and 10 percent are unemployed. 60 percent of the non-college graduates are employed, and 40 percent are unemployed.

Put the values for the variable education-level on the top of the diagram.

What is the probability of selecting someone from this population who is a college graduate or employed?

Six percent of the population is women who have type O negative blood.

Overall, the population is 48 percent women.

Given that a woman has been selected from this population, what the probability that she has type O negative blood?

Six percent of the population are women who have type O negative blood.

Overall, 12 percent of the population has type O negative blood.

Given that someone with type O negative blood has been selected from this population, what the probability that this person is a woman?