Exercise - Categorical Data and Conditional Probabilities

▼

Questions 1- 5 refer to the following information.

The table below shows the number of college faculty members in three departments: biological sciences, education, and social sciences.

	Biological Sciences	Education	Social Sciences	Total
Male	10	26	19	55
Female	15	21	17	53
Total	25	47	36	108

1

What is the probability that a randomly chosen faculty member is a female given that she is from Biological Sciences?

2

What is the probability that a randomly chosen faculty member is a male or from Social Sciences?

3

What is the probability that a randomly chosen faculty member is a female from Education department or a male from Social Sciences?

4

What is the probability that a randomly chosen faculty member is from Biological Sciences given that the faculty member is a male?

5

For Biological Science and Education faculties combined, $\frac{1}{6}$ of the female and $\frac{1}{4}$ of the male faculty members are associate professors. If a person is randomly chosen from these two departments, what is the probability that a faculty member is an associate professor?

▲