

3.2.1: Exercises

1. Imagine a survey of students, faculty, and administrators is conducted to gauge the importance of using social media to interact with peers and colleagues. The data is summarized in the two-way table below.

	Very important	Somewhat important	Not important	Total
Students	65	82	52	199
Faculty	15	31	36	82
Administrators	9	15	15	39
Total	89	128	103	320

- a. Name one way in which students, faculty, and administrators differ in their attitudes regarding social media.
- b. What is the probability that a subject felt social media was very important? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- c. What is the probability that a subject felt social media was somewhat important? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- d. What is the probability that a subject felt social media was not important? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- e. What is the probability that a subject is a student? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.

- f. What is the probability that a subject is a faculty? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- g. What is the probability that a subject is an administrator? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- h. What is the probability that a subject is a student and felt that social media was very important? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- i. What is the probability that a subject is a faculty and felt that social media was very important? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- j. What proportion of students felt that social media was very important? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- k. What proportion of those that felt that social media was somewhat important were faculty? Use probability notation in your answer. Write your answer as a fraction and decimal rounded to three decimal places.
- l. Which is more likely: Finding a student who thinks social media is not important, or finding a faculty member who thinks social media is not important. Defend your response.

2. The forecast for an upcoming weekend shows a 30% chance of rain on Saturday and a 20% chance of rain on Sunday. Assume these events are independent. What is the probability of it raining on both days?