

Two-Way Tables and Probability

Use the table below to answer the following questions.

| | Average is more than 100 texts sent per day | Average is less than 100 texts sent per day | Total |
|----------|---|---|-------|
| Teenager | 20 | 4 | 24 |
| Adult | 2 | 22 | 24 |
| Total | 22 | 26 | 48 |

1. What percent of teens send more than 100 texts per day on average?
2. What percent of teens send less than 100 texts per day on average?
3. What percent of people who send more than 100 texts per day are teens?
4. What percent of people who send less than 100 texts per day are adults?
5. What percent of people send more than 100 texts per day?

Below is a two way frequency table that summarizes how many customers ordered chicken on weekdays and on weekends over a certain period of time as well as how many ordered fish.

| | Chicken | Fish | Total |
|---------|---------|------|-------|
| Weekday | 65 | 79 | 144 |
| Weekend | 88 | 107 | 195 |
| Total | 153 | 186 | 339 |

1. If it is a weekday, what is the probability that a person ordered chicken?
2. If it is a weekday, what is the probability that a person ordered fish?
3. If a person ordered chicken, what is the probability that it is a weekday?
4. If a person ordered fish, what is the probability that it is a weekend?
5. What is the probability that a person orders fish?

The following data represents the number of men and women passengers aboard the Titanic and whether or not they survived.

| | Survived | Did Not Survive | Total |
|--------------|-----------------|------------------------|--------------|
| Men | 146 | 659 | 805 |
| Women | 296 | 106 | 402 |
| Total | 442 | 765 | 1207 |

1. What is the probability that a randomly chosen passenger was a woman?
2. What is the probability that a randomly chosen passenger survived?
3. If a passenger was a woman, what is the probability that she survived?
4. If a passenger was a man, what is the probability that he survived?
5. If a passenger did not survive, what is the probability that it was a woman?