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## Interpreting Two-Way Frequency Tables

Use the data from each two-way frequency table to answer the questions.

1. At Crescent Valley Adventure Camp, Ms. Santos packs snacks and drinks for the campers to have during their day trips. Ms. Santos surveys a sample of campers about their preferred drink and day trip. She organizes the data in the two-way frequency table below.

|  | HIKING | KAYAKING | TOTAL |
| :---: | :---: | :---: | :---: |
| WATER | 22 | 11 | 33 |
| SPORTS <br> DRINK | 17 | 38 | 55 |
| TOTAL | 39 | 49 | 88 |

a. Which drink is less popular among the campers surveyed who prefer hiking?
b. Lia prefers water. Is it more likely that she prefers hiking or kayaking? Explain your answer.
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C. Does the data support the following statement? Explain your answer. It is likely that a camper who prefers kayaking also prefers water.
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2 Natasha, the owner of City Green Bike Share, collected data on the type and duration of bike rentals. She created the two-way frequency table below to represent the data.

| (66) <br> (64) <br> ONE HOUR | MOUNTAIN <br> BIKE | ELECTRIC <br> BIKE | TOTAL |
| :---: | :---: | :---: | :---: |
| HALF DAY | 34 | 68 | 93 |
| FULL DAY | 68 | 32 | 102 |
| TOTAL | 110 | 185 | 295 |

a. Which type of bike was more frequently rented for half of a day?
b. Liam rented a bike from City Green Bike Share. Is it more likely that he rented a mountain bike or an electric bike? Explain your answer.
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C. Does the data support the following statement? Explain your answer. Most people who rented a mountain bike got a full-day rental.

## Interpreting Two-Way Frequency Tables

Keep going! Use the data from each two-way frequency table to answer the questions.
3.

Mr. Lu is helping organize the back-to-school bash at Franklin Middle School. He is in charge of
ordering food for the event. He surveys some students about their food preferences and records the data in the two-way frequency table below.

| $\because$ | TACOS | HOT <br> DOGS | PIZZA | TOTAL |
| :---: | :---: | :---: | :---: | :---: |
| 6TH <br> GRADERS | 19 | 16 | 16 | 51 |
| 7TH <br> GRADERS | 16 | 14 | 22 | 52 |
| 8TH <br> GRADERS | 12 | 15 | 23 | 50 |
| TOTAL | 47 | 45 | 61 | 153 |

a. Which food is the least popular among the 7th graders surveyed?
b. James is in 8 th grade at Franklin Middle School. Which food is he most likely to prefer? Explain your answer.
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C. Mr. Lu can only buy two of the food options for the back-to-school bash. Which two food options would you recommend he choose? Explain your answer.
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4.

The staff at the Greenwood Community Center is organizing a block party. They survey a random sample of community members to decide which types of music the DJ should play. Their data is shown in the two-way frequency table below.

|  | POP | RAP | JAZZ | ROCK | TOTAL |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 25 YEARS <br> OLD AND <br> UNDER | 26 | 43 | 2 | 4 | 75 |
| OVER <br> 25 YEARS <br> OLD | 14 | 9 | 14 | 42 | 79 |
| TOTAL | 40 | 52 | 16 | 46 | 154 |

a. Which is the least popular type of music among the community members surveyed?
b. Bo was surveyed. If he is 41 years old, which type of music is he most likely to prefer? Explain your answer.
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C. The majority of the people attending the block party will be 25 years old and under. Which type of music would you recommend the DJ play most often? Explain your answer.

