

p. 60-61 Two-way Frequency Tables

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A two-way frequency table shows data that pertain to two different categories.

1. Below is the data collected from a random sample of juniors at Dundee-Crown.

	Play a Sport	Do Not Play a Sport	Total
Plan on Going to College	14	23	37
Plan on Joining the Work Force	10	3	13
Total	24	26	50

- a. Complete the table
- b. How many students plan on going to college? 37
- c. How many students play a sport? 24
- d. How many students play a sport and plan on going to college? 14
- e. How many students do not play a sport and plan on joining the work force? 3

2. Daniel surveyed students at his middle school regarding the amount of students who own cell phones and/or tablets. He created the below frequency table.

	Tablet	No Tablet	Total
Cell Phone	57	21	78
No Cell Phone	13	9	22
Total	70	30	100

- a. Complete the table
- b. How many students did Daniel survey? 100
- c. How many students own a tablet? 70
- d. How many students own a cell phone? 78
- e. How many students own a tablet and do not own a cell phone? 13

Relative frequency: a ratio of how often something happened to a certain total.

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3. Becky works at a summer camp. The students have the opportunity to sign up for swimming and/or mini-golfing. To organize the data, Becky creates the following two-way frequency table.

	Swimming	Not Swimming	Total
Mini-Golf	28	34	62
Not Mini-Golfing	43	45	88
Total	71	79	150

- a. Some of the data was lost! Help Becky complete the above table
- b. How many students attend the summer camp? 150
- c. What is the relative frequency of students going swimming and mini-golfing to the total number of students in the summer camp?  $\frac{28}{150} = \frac{14}{75}$
- d. What is the relative frequency of students going swimming to the total number of students in the summer camp?  $\frac{71}{150}$
- e. What is the relative frequency of students going mini-golfing to the total number of students in the summer camp?  $\frac{28}{71}$
- f. What percent of students are going mini-golfing but not going swimming?  $\frac{34}{150} \approx 23\%$
- g. What percent of students are not going swimming nor mini-golfing?  $\frac{45}{150} = 30\%$
- h. What percent of students are swimming and mini-golfing?  $\frac{28}{150} \approx 19\%$
- i. Is there a higher percentage of students doing both activities or doing neither activities? By how much? neither, by 11%

Practice! Practice! Practice!

