## Two-Way Frequency Tables

1. Mr. Smith keeps track of his students' homework completion. He keeps track of how many boys and girls do not complete their homework. He puts students who don't complete their homework into two categories: first-time offenders and repeat offenders. He uses a table to keep track of the results.

|  | First-time offenders | Repeat offenders | Total |
| :--- | :--- | :--- | :--- |
| Boys |  |  |  |
| Girls |  |  |  |
| Total |  |  |  |

a. In one month 36 girls and 12 boys did not do their homework for the first time. 12 girls and 10 boys did not do their homework again. Put these figures in your table.
b. How many offenses occurred this month?
c. What percentage of first-time offenders were boys?
d. Are boys or girls more likely to not complete their homework? Explain your reasoning.
2. Create a two-way table for $9^{\text {th }}$ graders' school transportation survey and then answer the questions below, given that

Male: 28 walk; 28 car; 52 bike; 2 skateboard
Female: 46 walk; 17 car; 12 bus; 17 bike
a. What percentage of $9^{\text {th }}$ grader girls walk to school?
b. What percentage of $9^{\text {th }}$ graders are girls who walk to school?
3. Heather (a hairdresser) is making a record of all the customers she has had in the last month.
a. Design and label a table that will show the number of male and female customers who are blond or brunette.

|  |  |  |  |
| :--- | :--- | :--- | :--- |
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|  |  |  |  |
|  |  |  |  |

b. In one month she had 40 blond females and only 5 blond males. She also had 15 brunette males and 80 brunette females. Put these values in the table.
c. What percentage of customers were females?
d. What percentage of male customers were blond?
e. Are Heather's customers more likely to be blond or brunettes? Explain.

