

3. A random group of students are polled about how they get to school. The results are summarized in the table below.

		School Transportation Survey			Total
		Walk	Ride Bus	Carpool	
Gender	Male	9	26	9	44
	Female	8	26	24	58
Total		17	52	33	102

- a. Calculate the relative frequencies for the table above. Write them as a percent in each cell of the table. Round to the nearest tenth of a percent.
- b. What is the relative frequency for the Carpool category? Write a sentence interpreting this value in the context of school transportation.
- c. What is the proportion of students who are female and walk to school? Write a sentence interpreting this value in the context of school transportation.
- d. A student is selected at random from this school. What would you predict this student's mode of school transportation to be? Explain.

Name _____

Date _____

Lesson 14: Association Between Categorical Variables

Exit Ticket

A random sample of 100 eighth-grade students are asked to record two variables: whether they have a television in their bedrooms and if they passed or failed their last math test. The results of the survey are summarized below.

- 55 students have a television in their bedrooms.
- 35 students do not have a television in their bedrooms and passed their last math test.
- 25 students have a television and failed their last math test.
- 35 students failed their last math test.

1. Complete the two-way table.

	Pass	Fail	Total
Television in the Bedroom			
No Television in the Bedroom			
Total			

2. Calculate the row relative frequencies, and enter the values in the table above. Round to the nearest thousandth.
3. Is there evidence of association between the variables? If so, does this imply there is a cause-and-effect relationship? Explain.