Name $\qquad$ Date $\qquad$

## Lesson 14: Association between Categorical Variables

## Exit Ticket

A random sample of 100 eighth-grade students is asked to record two variables, whether they have a television in their bedroom 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 bedroom.
- 35 students do not have a television in their bedroom 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 <br> Bedroom |  |  |  |
| No <br> Television in <br> Bedroom |  |  |  |
| Total |  |  |  |

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