## Lesson 9 Practice Problems

1. A scientist wants to know if the color of the water affects how much animals drink. The average amount of water each animal drinks was recorded in milliliters for a week and then graphed. Is there evidence to suggest an association between water color and

|  | cat intake <br> $(\mathrm{ml})$ | dog intake <br> $(\mathrm{ml})$ | total <br> $(\mathrm{ml})$ |
| :---: | :---: | :---: | :---: |
| blue water | 210 | 1200 | 1410 |
| green <br> water | 200 | 1100 | 1300 |
| total | 410 | 2300 | 2710 | animal?


2. A farmer brings his produce to the farmer's market and records whether people buy lettuce, apples, both, or something else.

|  | bought <br> apples | did not buy <br> apples |
| :---: | :---: | :---: |
| bought <br> lettuce | 14 | 58 |
| did not buy <br> lettuce | 8 | 29 |
|  | 8 |  |

Make a table that shows the relative frequencies for each row. Use this table to decide if there is an association between buying lettuce and buying apples.
3. Researchers at a media company want to study news-reading habits among different age groups. They tracked print and online subscription data and made a 2-way table.

|  | internet media | print media |
| :---: | :---: | :---: |
| 18-25 year olds | 151 | 28 |
| 26-45 year olds | 132 | 72 |
| $46-65$ year olds | 48 | 165 |
|  |  |  |

a. Create a segmented bar graph using one bar for each row of the table.
b. Is there an association between age groups and the method they use to read articles? Explain your reasoning.
4. Using the data in the scatter plot, what is a reasonable slope of a model that fits this data?

A. -2.5
B. -1
C. 1
D. 2.5
(From Unit 6, Lesson 6.)

