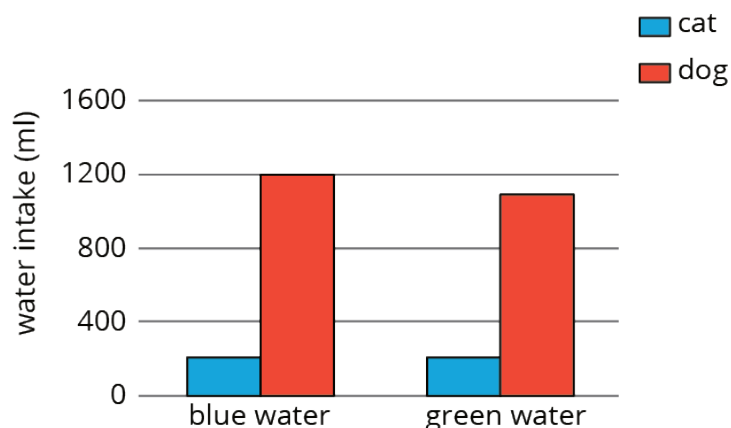


Lesson 23 Practice Problems

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 animal?

| | cat intake (ml) | dog intake (ml) | total (ml) |
|-------------|-----------------|-----------------|------------|
| blue water | 210 | 1200 | 1410 |
| green water | 200 | 1100 | 1300 |
| total | 410 | 2300 | 2710 |



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

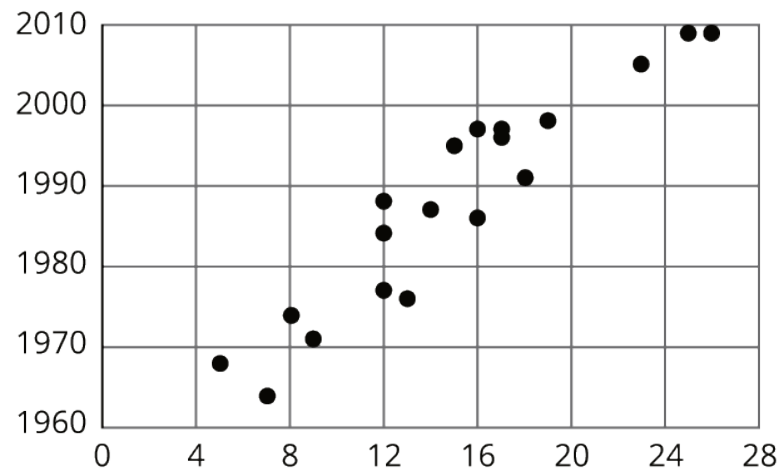
| | bought apples | did not buy apples |
|---------------------|---------------|--------------------|
| bought lettuce | 14 | 58 |
| did not buy lettuce | 8 | 29 |

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 5, Lesson 21.)