

Name: \_\_\_\_\_

Comparing and Scaling - Investigation 1 - Problem 1.1



Cola Survey

1. In a taste test, people who preferred Coke outnumbered those who preferred Pepsi by a ratio of 17,139 to 11,426.
2. In a taste test, 5,713 more people preferred Coke.
3. In a taste test, 60% of the people preferred Coke.
4. In a taste test, people who preferred Coke outnumbered those who preferred Pepsi by a ratio of 3 to 2.

- A.
1. How many how many people were surveyed?
  2. What equation can be used to obtain the information for statement #2?
  3. What equation can be used to obtain the information for statement #3?
  4. What equation can be used to obtain the information for statement #4?

B. If you were to survey 1,000 cola drinkers, what number of the drinkers would you expect to pick:

Coke? Pepsi?

C. If you were to survey 2,500 cola drinkers, what of the drinkers would you expect to pick:

Coke? Pepsi?

D. Which of the 4 statements would be the easiest for an average person to understand?

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Required Practice:

1. In a comparison taste test of two similar sodas, 780 7th graders preferred Mountain Dew. Only 220 7th graders preferred Mello Yello. Based on this information, complete each statement:

- a. There were \_\_\_\_\_ more people who preferred Mountain Dew.
- b. In the taste test, \_\_\_\_\_% of the people preferred Mountain Dew.
- c. People who preferred Mountain Dew outnumbered those who preferred Mello Yello by a ratio of \_\_\_\_\_ to \_\_\_\_\_.

2. Washtenaw Dairy conducted a survey of Ann Arbor 7th grade students and found that 750 preferred Cookies and Cream while 1,250 preferred Chocolate. Based on this information, complete each statement:

- a. The **fraction** of 7th graders who preferred Cookies and Cream is \_\_\_\_\_.
- b. The **percent** of 7th graders who preferred Chocolate is \_\_\_\_\_.
- c. People who preferred Chocolate outnumbered those who preferred Cookies and Cream by a ratio of \_\_\_\_\_ to \_\_\_\_\_.

3. A survey of Tappan staff considered whether students should be allowed to have recess during Advisory next school year. The ratio of teachers who **support** having recess to those who **oppose** recess is 2 to 5.

- a. What fraction of the teachers **oppose** recess during Advisory?
- b. If there are 77 staff at Tappan, how many do you expect **favor** recess?
- c. What **percent** of the teachers **oppose** recess?