

Study Sheet: Data Management

Dear Parent(s)/Guardian(s),

Data management is the collection, organization, interpretation and display of data. Data is collected in a variety of ways and serves many purposes. Data can be found in advertising, in opinion polls and in newspapers concerning weather, finances and leisure. In this unit, we have completed activities that require interpretation of data from charts, surveys, graphs and tables. We have also interpreted, displayed and analyzed data in graphs, charts and tables that demonstrate trends and/or contain bias. We have discussed the purpose of the range of numbers and how to calculate the range. We further looked at how the range can help determine intervals which can then be used to create scales on a graph and how some graphs may change in appearance when the scale is altered. We have explored how to determine the mean and mode and we have conducted surveys about ourselves, the environment and issues in the school or community.

Some sample questions for further practice and preparation for the unit test on Tuesday December 17th would be:

(Review notes and feedback from our unit to help answer these questions and prepare for the test)

1. Chantal tossed a red die and a white die to make a two-digit number. She used the number on the die on the left to represent tens and the number on the right die to represent ones. She recorded the results for 50 tosses.

Results for 50 Tosses

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 21 | 63 | 55 | 41 | 65 | 53 | 26 | 33 | 52 | 36 |
| 45 | 22 | 33 | 22 | 44 | 31 | 54 | 66 | 51 | 23 |
| 12 | 53 | 52 | 33 | 55 | 12 | 43 | 62 | 43 | 15 |
| 34 | 51 | 24 | 12 | 25 | 34 | 21 | 12 | 43 | 54 |
| 45 | 61 | 33 | 26 | 43 | 35 | 41 | 23 | 44 | 61 |

- a) What is the range of the data?
- b) Chantal wants her graph to show about six bars. What intervals can she choose for the graph?
- c) Use Chantal's data to create a tally chart and a bar graph.

2. The data shows the amount of bottled water the average Canadian drank each year.
 - a) Make a broken-line graph to show the data.
 - b) Describe any trends that you see in your graph.
 - c) What kind of data is this? Primary Data or Secondary Data
 - d) Is this Discrete Data or Continuous Data

Amount of Bottled Water Each Year

| Year | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|---------------------|------|------|------|------|------|------|
| Amount of Water (L) | 18 | 20 | 21 | 23 | 25 | 28 |

3. Karen went for a hike each Saturday for a month. She hiked 6km, 5km, 8km, 5km.
 - a) What is the mean distance that she hiked each day?
 - b) What is the mode of her distance?
 - c) Determine the mode and mean of five numbers of your choice.
 - d) Add 2 to each of your own numbers from question c. Then determine the mode and mean of these **new** numbers.
4. Michael surveyed 29 students in his Grade five.
His question was: Which flavour of potato chip do you prefer?
 - a) Regular
 - b) Ketchup
 - c) Salt and Vinegar

- A. What kind of data is this? Circle the correct answer. Primary Data or Secondary Data
- B. Why might the results of his survey be biased? Explain your thinking.
- C. How could you change the survey to get rid of the bias? Explain your thinking.

5. Pete's Pizza Plus recorded the number of pizzas sold over five days.

- a) Draw a pictograph of the data using whole and partial symbols. Make sure you show a scale.

Pizzas Sold in Five Days

| DAY | Number of pizzas |
|-----------|------------------|
| Monday | 165 |
| Tuesday | 180 |
| Wednesday | 145 |
| Thursday | 198 |
| Friday | 230 |