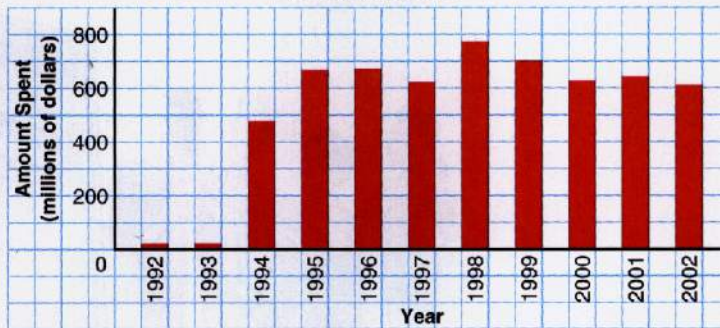


2. Each of ten cats was given a bowl filled with Purr-Fect cat food. Seven cats ate the food in the bowl. Three cats did not. Advertisers for Purr-Fect cat food claimed: “70% of cats prefer Purr-Fect cat food.”
- Is this claim true? Explain.
 - What inferences would you make from the data? Explain.
3. a) What inferences can you make from this graph? Explain.

Federal Government Money Spent on Water Purification



Source: Statistics Canada, *Canada e-Book* (11-404-XIE) based on the 2001 *Canada Yearbook* (11-402-XPE). http://142.206.72.67/01/01b/01b_graph/01b_graph_002d_1e.htm Date extracted: April 11, 2005

- How can the graph be used to justify each argument?
 - The government has reduced its spending on water purification.
 - The government has increased its spending on water purification.
4. Liang asked 20 Grade 8 students: “What is your favourite outdoor summer activity?” He recorded these results:

Activity	Swimming	Biking	Canoeing	Skateboarding	Rollerblading
Number of Students	7	5	2	3	3



How could Liang use the results of his survey to make these arguments? Justify your answers.

- The majority of students surveyed chose swimming as their favourite outdoor activity.
- Land activities are preferred over water activities.

5. Fifteen hundred students attend Bishop Ryan High School. One hundred twenty students were asked, "Do you think the school library hours should be extended?" Forty students agreed that library hours should be extended, 10 students said they were against extended hours, and 70 students had no opinion. The Bishop Ryan High School newspaper reported:

"Survey indicates 80% of the student body who had an opinion, agree that school library hours should be extended."



- a) Is this a valid inference? Justify your answer.
b) Write a convincing argument that could be justified by the survey results.
Explain your reasoning.
6. Police recorded this information about 100 car accidents:
- 40 were within 3 km of the driver's home
 - 30 were on the highway
 - 20 were in parking lots
 - 10 were on country roads
- A newspaper reporter wrote the following headline:

Majority of Car Accidents Happen Close to Home

- a) How could the reporter use the data to convince readers that his statement is true?
b) What statement could you make to prove the reporter is wrong? Justify your statement.
c) Write two inferences that can be made from the data. Justify your inferences.