

Chapter 2

Linear and Non-Linear Relations

2.1 Hypotheses and Sources of Data

Hypothesis: The Pittsburgh Penguins are the most popular sports franchise.



Discuss the validity of this hypothesis:

How could this hypothesis be verified?

What is a hypothesis?....

A **hypothesis** is:

Practice making hypotheses about the relationship between each pair of variables :

1. The number of texts sent per day and the age of a person?
2. How much a person likes the Penguins and their IQ?
3. The size of an animal and its lifespan?

Hypotheses and their opposites

Write a hypothesis about a relationship between the variables in each pair. Then, give the opposite hypothesis

- 4) A driver's age and the risk of having an accident

5) Homework completion and marks.

Sources of Data

Primary Data:

Secondary Data:

Which of the following is a primary source of data:

6)

- a) an article in a magazine
 - b) a database
 - c) conducting an experiment to test the effectiveness of a new medication
 - d) an entry from an online encyclopedia
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Which of the following is a secondary source of data:

7)

- a) conducting a survey amongst your classmates
- b) conducting an experiment to study the effects of pollution
- c) data collected 100 years ago by the Canadian government
- d) counting the makes of cars in a mall parking lot

Explain whether each set of data is primary or secondary. What are the advantages and disadvantages of each person's choice of data source

- 8) Daniel phoned 100 families in his town to ask them how many pets they owned:

- 9) Cathy used data from Statistics Canada to determine the proportion of households in Canada that have at least one car.

Complete Worksheet