

Math 9

Name: _____

8.2 – Using *Samples* and *Populations* to Collect Data

Date: _____

A **Population** is:

A **Census** is:

A **Sample** is:

Advantages and disadvantages of a **Census**:

Advantages and disadvantages of a **Sample**:

Ex. 1: In each of the following examples, explain why a Population was surveyed instead of a Sample:

a. To determine the average number of siblings of his classmates, George surveyed each person in his class.

b. To determine the ages of the people in each household, Statistics Canada conducts a Census every 5 years.

Ex. 2: The Student Council is planning a school dance. To attract more Grade 9 students to attend, the Council decided to collect data about the kind of music preferred by the Grade 9 students. Data was collected by surveying students outside the Cafeteria. 73% of the Grade 9 students were surveyed.

a. Why was the data collected from a Sample instead of the entire Population?

b. Is the survey valid? Explain.

Ex. 3: For each example below, determine if the data was collected from a Sample or Population. If a Sample was used, explain if the conclusion would be valid.

a. A province considers banning cell phones in its schools. To determine the opinions of students on this issue, you poll each student in your school.

b. To determine which candidate is expected to win the Mayoral election, every person over the age of 18 and who is eligible to vote, is polled.

c. To determine the average lifetime of a type of light bulb, 150 light bulbs were selected at random from the production line and tested.

Ex. 4: For each situation below, determine whether it would be appropriate to use a Sample or Population. Explain your choice.

a. A mother wants to know what to make for dinner.

b. A soft drink company wants to know which of its two new drinks is preferred by teenagers.

c. The coach of a Soccer team wants to know what colour uniforms to get for her team.

d. The Parks and Recreation Board wants to know whether to build a skateboard in one of the city's parks.