

CHAPTER 2 Relations
2.2 Sampling Principles
Populations, samples and random sampling

Example:

a) Cloud Hopper Airline wants to know if its customers would prefer to have lower fares in exchange for decreased food service on its flights. Identify the population, and whether a sample or a census should be used.



b) Describe one way in which the airline can select a sample of its customers, and whether the sample is a random sample.

Solution:

a) The population is all people who fly on Cloud Hopper Airline. A sample would be easier to use, since it may be difficult to reach and survey all possible passengers.

b) The airline can select every 10th passenger on several of its flights, and ask the passenger for a vote on the issue. There is a slight possibility that a frequent flyer may be asked for a vote more than once.

Practice:

1. The Beverage Can Collectors of Canada has 75 members scattered across the country. A committee has been formed to compile a list of all of the different cans in members' collections. Identify the population, and whether a sample or a census should be used.



2. A fast food franchise is considering opening a location in the food court of the Emporium Shopping Mall. They would like information on whether their products are likely to sell well. Identify the population, and describe one way in which the franchise can select a sample.

Answers:

1. The population is all of the cans in the members' collections. A census must be used, or some types of cans may not be listed.

2. The population is the people who eat at the Food Court. The franchise can offer a coupon to every 20th customer entering the food court, good for a free sample of their products.