11.1 Sampling

Write your questions here!

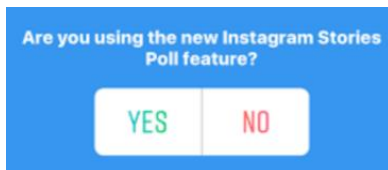**Is the soup good?**

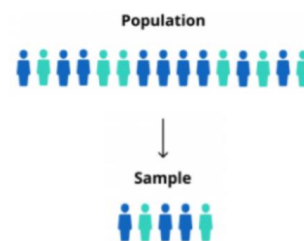**Census**

Polls

Are you using the new Instagram Stories Poll feature?

YES   NO

POPULATION =

Population

SAMPLE =

Sample

A sample represents _____

Sampling Techniques

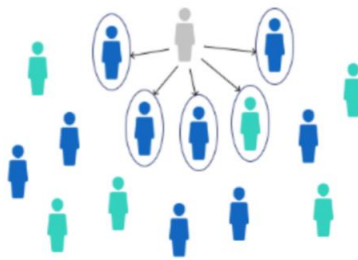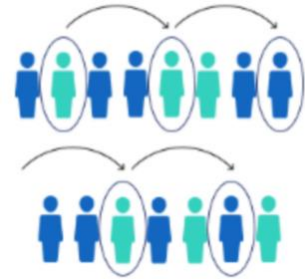_____ Sample | _____ Sample | _____ Sample
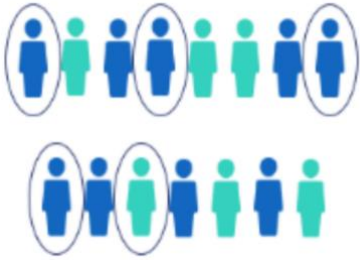
Each member of the population has an equal chance of being selected.

The sample contains those members of the population from which data are most easily collected.

Every n^{th} member of the population is selected.

Example: every 3rd person is selected

Mr. Brust wants to know if the 7th grade class would like to have a spring dance.

Population = _____

Sample Types:

1. Ask every 7th grader = _____

2. Ask the 7th graders in his seminar = _____

3. Get a list of 7th grade class.
   Randomly select 20 students = _____

4. Get a list of 7th grade class.
   Ask every eighth student on the list = _____

SUMMARY:

Now, summarize your notes here!

In each situation, identify the population and the sample.

1. Mikayla surveyed her science class to identify the K pop group most listened to by the students in her grade.

    Population = _____   Sample = _____

2. David is interested in politics in his town. He stands at a busy street corner asking people whom they plan to vote for in the upcoming election.

    Population = _____   Sample = _____

3. The counselor at Generic Middle School wonders about the GPA of the students. The counselor randomly calls 20 students to their office and asks them their GPA.

    Population = _____   Sample = _____

4. Dwayne owns a fitness center. He asks members at the 5 o'clock Spin class if they would like to have Lift A Thon to raise money for a local charity.

    Population = _____   Sample = _____

Identify the sampling technique for each scenario. Simple Random, Convenience, or Systematic Sample.

5. A bottled water company wants to find out why people choose a particular brand of bottled water.

    (A) Call every 20th person who mails in a coupon as part of a money-back offer on the purchase of their bottle of water.

    (B) Call 400 numbers chosen randomly from all the residential phone numbers in the city.

    (C) Ask the first 20 people seen carrying bottled water in a park on a summer day.

For 6-10, use the situation to answer the following questions.

Sully loves Pokémon. He has a huge stack of Pokémon cards. He wants to know if he needs more "water" type cards so decides to sample his cards. He has several ideas for sampling his cards.

6.   What is the population? _____

Sampling ideas:

7. Pull the top 8 cards off the top of the stack.

What type of sample is it?

(A) Simple Random Sample

(B) Convenience Sample

(C) Systematic Sample

(D) Census

8. Put the cards in a bag and randomly select 8 cards.

What type of sample is it?

(A) Simple Random Sample

(B) Convenience Sample

(C) Systematic Sample

(D) Census

9. Pull every 5th card from the stack.

What type of sample is it?

(A) Simple Random Sample

(B) Convenience Sample

(C) Systematic Sample

(D) Census

10. Look at every card in the stack.

What type of sample is it?

(A) Simple Random Sample

(B) Convenience Sample

(C) Systematic Sample

(D) Census

For 11-13, use the situation to answer the following questions.

Generic Middle is setting up a student council to represent the 150 students in 6th grade. They have several ideas for sampling the 6th graders.

11. What is the population? _____

Sampling ideas:

12. Take the first 10 students that show up to school on Tuesday.

What type of sample is it?

(A) Simple Random Sample

(B) Convenience Sample

(C) Systematic Sample

(D) Census

13. Randomly number all the 6th graders. Take every 12th sixth grader on the list.

What type of sample is it?

(A) Simple Random Sample

(B) Convenience Sample

(C) Systematic Sample

(D) Census

11.1 Sampling

Identify the population and the sample. Then determine what type of sample it is.

1. A company wants to know the favorite popsicle flavor of residents in the town of Mathville. The company numbers every resident in Mathville and randomly selects 100 residents to ask their favorite flavor of popsicle.

Population = _____   Sample = _____

2. What type of sample is it?

(A) Simple Random Sample

(B) Convenience Sample

(C) Systematic Sample

(D) Census

EXIT TICKET –

Generic High School has 204 students in the band. The booster club wants to know if they should sell band hoodies or band t-shirts. Explain how to create a sample using…

(A) Simple Random Sample:

(B) Convenience Sample:

(C) Systematic Sample: