

You need out your Warm Up & Agenda

Homework: Samples & Populations

Warm Up:

1)  $-8(x - 9)$

2) I can make 3 bracelets in 18 minutes. How many bracelets can I make in 36 minutes?

3) You can drive 50 miles in 40 minutes. How long will it take you to drive 100 miles?

$$\frac{\text{mile}}{\text{min}} \frac{50}{40} = = \frac{\cancel{50} \cdot 100}{\cancel{40} \cdot x}$$

$$\frac{50 \times 74000}{50} = 50$$

$$x = 80$$

Find  
x

~~$4x = 120$~~

$$\begin{array}{l} 4x = 120 \\ \hline 4x = 30 \end{array}$$

## Unit 5- Inferences/Statistics

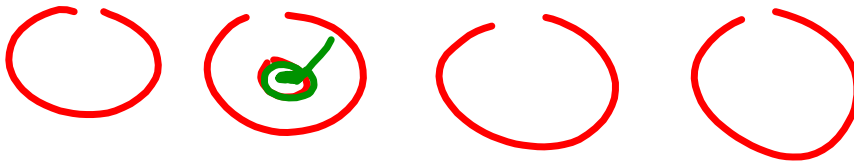
**Making Predictions: Samples & Population**

Survey: method of collecting info

Census: you ask everyone in an entire population.

Population: the group being studied.

Sample: the actual people you survey



For each survey topic, determine which set represents the population and which represents a sample of the population. Write *population* or *sample*.

Survey Topic	Set A	Set B
1. dress code changes	the students in a middle school <u>Pop</u>	the seventh graders in the middle school <u>Sample</u>
2. favorite flavors of ice cream	the customers at an ice cream shop in the town <u>Sample</u>	the residents of a town <u>Pop</u>

**Examples of Finding the Sample and Population:**

1. Jessie wants to survey McCleskey Middle School students about their favorite ice cream flavor. She sampled every 10<sup>th</sup> person who entered the cafeteria.

Pop: MMS students Sample: 10th person in  
Cafe

2. Ms. Cervino & Mrs. Henry want to know how many McCleskey students spend more than 20 minutes on their math homework. They surveyed each of their math classes.

Pop: MMS students Sample: math class

3. The Manager of Town Center Mall wants to know the mean age of the people who shop at the mall and stores they typically shop at. They decide to interview the first 10 people who walked into the mall.

Pop: ppl who shop @ the mall Sample: \_\_\_\_\_

Is this a valid group of people to interview? Why/Why not?

NO!



**DESCRIBE YOUR CLASS SURVEY**

We want to know about all of the students in Mrs. Sangster & Mrs. Henry's math classes.

In the space below, compile the data collected by your classmates.

- What color is your hair? Brown 14 Blond 4 Red 1 Black 6 (25)
  - -Do you own a cell phone? Yes 26 No 2 (28)
  - About how many text messages do you send in a day? 0-20 18 21-40 6 >40 4 (28)
  - About how much time do you spend on homework?  
 0-15 min 20 16-30 min 4 31-45 min 2 46-60 min 1 > 60 min 0 (27)
  - What month were you born?  
 Jan - March 6 April - June 4 July-Sept. 10 Oct-Dec 8 (28)
- SP

Using the survey results discuss the following vocabulary:

Who is the population of your survey?

S & H's classes

Who is the sample of the survey?

students in 1st period

Did your class perform a census or a survey?

survey

60%

What percent of your class has brown hair?

$14/25 = 56, 56\%$

Is this enough information to conclude 56% of McCleskey students have brown hair? Why/Why not?

NO - not enough ppl

Simple Random 😊

-everyone in the population has a fair chance.

-EX: randomly selecting names from a list or hat  
(like the sticks in class)

Systematic 😊

-People are selected according to a specific time interval.

EX: every 10th person to enter the cafeteria

Convenience ☹️

- "Lazy method"

- Members of a population are easily selected. (Something convenient)

EX: Mrs. Sangster only asking her homeroom a question.

Voluntary Response ☹️

- People volunteer to respond to a survey.

- Only people who want to participate complete it.

EX: a survey on Mrs. Sangster's blog for students to answer if they choose.

