

MATH 7

Write your
questions here!



BIAS =

Generic High School gets a bunch of money to spend on the school. The athletic director sends out a survey to the football team to ask how to spend the money.

POPULATION =

SAMPLE =

A good sample _____ represents the population!

GHS SURVEY

1. Would you rather have a state of the art weight room to increase our chances of winning sports or more costumes for the drama club which already has a bunch?

Fix the leading question.

Spring dances are so much fun! Do you want to have a spring dance?

Do you always eat breakfast?
Yes or No

How often do you eat breakfast?

1-2 times per week

3-4 times per week

5 or more times per week

usually don't eat breakfast

Sample Bias =

1. Sample size
2. Exclude part of the population
3. Include groups not in the population

Response Bias =

1. Leading Questions
2. Social Consequences

MathAir wants to know if its passengers think the seats on the plane are comfortable. They decide to survey passengers to find out.

POPULATION =

Sample 1 = ask the five tallest passengers

Sample 2 = ask the first 20 passengers that board the plane

Sample 3 = randomly select 40 seat numbers and ask the passengers on those seats

Are you excited about the next amazing Avengers movie?



I never copy homework. (yes or no)

SUMMARY:

Now,
summarize
your notes
here!



State the population. Identify each sample as GOOD SAMPLE or BIASED SAMPLE.

1. A math teacher wants to know, on a scale of 1 to 10, how much students in a middle school enjoy math class. The teacher decides to sample some students.

POPULATION = _____

Samples:

- a. Twenty students on the math team.

GOOD SAMPLE or BIASED SAMPLE

- b. Twenty students whose names were picked out of hat that contained the names of all the students.

GOOD SAMPLE or BIASED SAMPLE

- c. Twenty students who earned high grades in their math classes last year.

GOOD SAMPLE or BIASED SAMPLE

- d. Twenty students who failed their math classes.

GOOD SAMPLE or BIASED SAMPLE

2. The Chicago Bears and playing the Denver Broncos in a football games one weekend. Luca wants to know which team football fans think will win the game.

POPULATION = _____

Samples:

- a. Fifty randomly selected fans from across the United States.

GOOD SAMPLE or BIASED SAMPLE

- b. Fifty randomly selected fans in Denver.

GOOD SAMPLE or BIASED SAMPLE

- c. Fifty randomly selected fans in Green Bay which is the Bears biggest rival.

GOOD SAMPLE or BIASED SAMPLE

- d. Five randomly selected fans from school.

GOOD SAMPLE or BIASED SAMPLE

Label the following as GOOD QUESTION or BIASED QUESTION.

3. Everyone loves the new Top Gun movie more than the first Top Gun. Which Top Gun movie do you think is better?

GOOD QUESTION or BIASED QUESTION

4. In your opinion, how would you rate the quality of learning in your Math and English class?
Excellent Good Fair Poor

GOOD QUESTION or BIASED QUESTION

5. I am satisfied with our school lunch.
Strongly Agree Agree Disagree Strongly Disagree

GOOD QUESTION or BIASED QUESTION

Use the survey question to answer the following.

Should concerned parents use infant
car seats?

6. Explain why this survey question a leading question?
7. Rewrite the survey question so that it is not biased.

Use the scenario to answer the following.

8. A company is interested in opening a gym on its premise for all employees. They ask all 3rd shift workers the following question.

“I would be interested in using a gym located on the premise of work.”
Strongly Agree Agree Disagree Strongly Disagree

Population = _____

Sample = _____

Is the sample a GOOD SAMPLE or BIASED SAMPLE ?

Is the question a GOOD QUESTION or BIASED QUESTION ?

Identify the sample as GOOD SAMPLE or BIASED SAMPLE.

1. A department store wants to know if their new window display is well liked by their customers.

Samples:

- a. Randomly select 5 employees that helped design the display and ask their opinion.

GOOD SAMPLE or BIASED SAMPLE

- b. Randomly select 30 customers in the store and ask their opinion.

GOOD SAMPLE or BIASED SAMPLE

Label the following as GOOD QUESTION or BIASED QUESTION.

2. On a scale of 1-10 (10 being the highest and 1 being the lowest), rate the quality of Mr. Brust's video.

GOOD QUESTION or BIASED QUESTION

3. Soccer is boring because it is low scoring, would you support making the soccer goal bigger to increase scoring in a soccer match?

Strongly Agree Agree Disagree Strongly Disagree

GOOD QUESTION or BIASED QUESTION

EXIT TICKET –

Kate wants to know the average cost of a gallon of milk at the grocery stores in her city, so she goes to three grocery stores closest to her house. Is this a good sample? Why or why not?