Name:	
Date:	



Use methods 1 and 2 to answer questions 1-4. Write method 1 or method 2 in the space provided for each question.

Method 1	Method 2		
Johnny selected every other student, for a total 6 seventh grade boys as they walked out of the math class. He asked each of them for their shoe size.	Brandon found 6 boys in his math class with the largest shoes. He asked each of them for their show size.		
1) <u>Method</u> 2 produces results that are less representative of the entire student population.			
2) Method 1 produces results that are more representative of the entire student population.			
3) Method 2 is a biased sample. Explain your reasoning. Brandon found a specific			
group of boys w/ the data that he wanted			
4) <u>Method 1</u> is a random sample. Explain your reasoning. Johnny Selected every			
other student that he saw.			

5) Paul and his friends average their test grades and find that the average is 95. The teacher announces that the average grade of all of her classes is 83. Why are the averages so different?

only awaraged their scores, not the entire class.

6) Which of these statements best describes a biased sample?

- A) It is very small.
- B) It is not randomly chosen.

<u>C</u>) It results in incorrect predictions.

D)It does not accurately represent the population.

7) Determine if the following question is biased or random, **circle the answer below**.

Joey wants to find out what sport seventh grade girls like most. He asked the girls, "Is basketball your favorite sport?"

Biased Random If it is biased, what question should Joey ask for it to be random?

What is your favorite sport?

8) Carol wants to find out the favorite foods of students at her middle school. She asked the boys' basketball team about their favorite foods. Is Carol's sample a random sample? Explain.

No, ble it is only students on the team of hot all students

9) Karim wants to know what day of the week students at his school prefer. He numbered each seat in the cafeteria, wrote them on slips of paper, and placed them in a box with a lid. He then drew a number out of the box twenty times. He completed this process during all three lunches. Is Karim's sample a biased sample? Explain.

no, ble by drawing numbers it was a random sample

10) Determine if the following question is biased or random, circle the answer below.

Jacy wants to find out what type of art her fellow students enjoy the most. She asked her classmates, "What is your favorite type of art?"

Biased

Random

If it is biased, what question should Joey ask for it to be random?

11) In a survey about new bike paths, which group is least likely to be a biased sample?

- A) randomly-chosen gym members
- B) randomly-chosen dog walkers

C) randomly-chosen drivers D) randomly-chosen voters

12) Nancy hears a report that the average price of gasoline is \$2.82. She averages the prices of stations near her home. She finds the average price of gas to be \$3.03. Why are the averages different?

Nancy only looked at the stations around her house & not throughout the nation.

13) Members of a polling organization surveyed 700 registered voters by using a computer program to choose names from a list of all registered voters. Is the sample random or biased? Explain.

blc names were drawn from a random polling example

14) Dallas wants to know what elective subjects the students at his school like best. He surveys students who are leaving band class. Is the sample random or biased? Explain.

Biased blc only the one class is being polled, not students from the whole school.

15) Why does the following question show bias in a survey of a town's citizens about a new professional sports stadium?

"What are your feelings about a new stadium that will bring in a professional sports teams and the possibility of more business development by hotels and restaurants in our town?"

is guiding their answers instrad of just because it