**[Use the concept of variability to determine whether a question is statistical](http://www.teachfest.com/lesson_plans/140), Practice Set C**

Name:

Date:

A statistical question is one for which you don't expect to get a single answer. In fact, you expect to get a variety of different answers. All of the answers collected are data which can tell you a great deal about trends and provide other information about your data set.

1. Sybrina’s group has four students, including her. The table represents the results on a recent quiz.

|  |  |
| --- | --- |
| Student | Score |
| Brianna | 100% |
| Iyanna | 95% |
| Sybrina | 100% |
| Shaquezz | 90% |

1. Is the set of data statistical? Why or Why not?
2. What is a possible statistical conclusion can you make based on this set of data?
3. If all of the students scored 100% on this quiz, would the data still be statistical? Why or why not?
4. There are 5 people living in Sybrina’s house. The shortest person‘s height is 3.2 feet and the tallest person’s height is 6.4 feet. The middle person’s height is 4.9 feet. Is this data statistical? Why or why not?

[**Use the concept of variability to determine whether a question is statistical**](http://www.teachfest.com/lesson_plans/140)**, Practice Set C Answer Key**

1. Sybrina’s group has four students, including her. The table represents the results on a recent quiz.

|  |  |
| --- | --- |
| Student | Score |
| Brianna | 100% |
| Iyanna | 95% |
| Sybrina | 100% |
| Shaquezz | 90% |

1. Is the set of data statistical? Why or Why not?

*This set of data is statistical. It represents four students’ scores on one quiz. There is variability in the data collected.*

1. What is a possible statistical conclusion can you make based on this set of data?

*A possible statistical conclusion would be that all students have learned what was on the quiz.*

1. If all of the students scored 100% on this quiz, would the data still be statistical? Why or why not?

*This data would be statistical. Even though there is no variation in the data, the potential for variation was there.*

1. There are 5 family members living in Sybrina’s house. The shortest person‘s height is 3.2 feet and the tallest person’s height is 6.4 feet. The middle person’s height is 4.9 feet. Is this data statistical? Why or why not? What question does this data answer?

*This set of data (three different values are given for the heights of members of her family) is statistical. Even though all of the data is not represented, we can infer that the other two family members’ heights are somewhere in between the shortest and highest. The statistical question “How tall are the members of Sybrina’s family?” would have to have been posed to get the data.*