

Name _____

STATISTICAL QUESTIONS

Directions: Read the information below.

Throughout your life, you have heard many questions. If you have a young brother or sister then you know small kids ask many questions. You may have even wondered some things throughout your time in middle school. For example, how long does it take most students to get from gym class to their locker? What was the average grade on a test? These are examples of statistical questions. A statistical question is one that can be tested and you would expect to see variability in the answers.

Variability means a difference. When you ask about the average grade on a test, you know there will be different grades for each student. What you're really asking about is the mean, or average. You may see scientists or engineers ask questions about the "typical" time or the "typical" age, etc. When you see the word typical, it is synonymous with average.

Consider the time it takes to get from gym class to your locker. It may take you four minutes, but that doesn't mean it takes every student the same amount of time. The question at the beginning of the text asked about how long it takes most students to make that trip. It could take some students as little as two minutes, while others need at least five minutes. There is a difference in the answers. That's variability, and that means you asked a statistical question.

A non-statistical question is, "How old is Samantha?" It is impossible for Samantha (or anybody) to be more than one age at a given time. If she is 14-years-old, there's no variability. Likewise, if you asked, "How many words are on this page?" it would not be statistical. However, with a slight modification you could create a statistical question. Changing the wording to ask, "What is the average number of words per page?" is better because each page will have a different number of words. If the question has a single, straightforward answer, it is likely not a statistical question.

Directions: Answer the questions below.

1. Look at the following questions below. For each question, check the box indicating whether the question is statistical or not.

Question	Statistical	Not Statistical
How old is your dog?		
What is the average height of your classmates?		
How many people in your family are left-handed?		
How many M&M's are in a typical bag?		
How many cats do you have?		
Why do we dream at night?		
What is the average temperature in July?		
How far does a typical frog jump?		
What is the name of the teacher?		
How many inches does the typical 7th grader grow in a year?		

