Lesson 7.1 Asking Statistical Questions

A **statistical question** has answers that will vary.

"How old are students in my school?" is a statistical question because not every answer will be the same.

"How old am I?" is not a statistical question because there is only one answer.

Read each question and write *statistical* or *not*.

a	b
1. How tall are the students in my class?	What does this apple cost?
2. What grades did students score on the test?	How fast can dogs run 100 yards?
3. How many marbles are in the jar?	Does a chocolate bar weigh more than a pack of jelly beans?
4. What was the difference in rainfall between March and April?	How many miles can cars travel on a gallon of gas?
5. Will I score a basket in the game tonight?	How often do adults eat breakfast?

Lesson 7.1 Asking Statistical Questions

Write one statistical question for each category below.

1. height of students

_____

2. test scores

_____

3. number of pages in books

_____

4. number of students in classes

_____

5. price of apples

_____

6. type of automobile

_____

7. exercise

_____

Lesson 7.2 Describing Data

Data can be described by how the values relate to each other and how they are spread out.

10, 7, 8, 8, 23, 45, 77, 90, 90

The data is spread over 82 points.   All of the values are greater than 0.

The center value of the data is 23.   The highest value in the data is 90.

The lowest value in the data is 7.   8 and 90 appear twice each in the data.

Write three descriptions of each data set.

1. 62, 68, 63, 67, 69, 63, 67

A. _____

B. _____

C. _____

2. 0, 0, 2, 8, 6, 10, 100

A. _____

B. _____

C. _____

3. 0, 8, 20, 45, 84, 92, 45

A. _____

B. _____

C. _____

Lesson 7.7 Using Measures of Center

Measures of center can be used to describe a data set. Each measure of center allows for different observations about the set.

The **mean** is the most popular measure of center. It is the average, so it provides the clearest picture of the center of the data, but only if there are no outliers (values that are far away from the majority of the numbers in the set).

The **median** is the most useful measure when the data set contains outliers.

The **mode** is the most useful measure when the values in the data set are non-numerical.

Tell which measure of center would be best for describing each data set.

	a	**b**
1.	3, 4, 5, 5, 7, 6, 21	62, 65, 72, 68, 66
	_____	_____
2.	54, 72, 85, 67, 93, 85, 61, 89	red, blue, green, red, blue, yellow, blue
	_____	_____
3.	$14.60, $7.25, $15.70, $15.25, $14.90	8, 25, 19, 19, 25, 9, 9, 18, 25, 9, 8, 7, 10
	_____	_____
4.	0, 1, 3, 5, 5, 5, 7, 9, 9, 11, 15, 99	A, B, C, A, B, C, D, A, B, B
	_____	_____