

# Math 6 - Unit 6: Statistics

## Unit 6 Study Guide

Name: \_\_\_\_\_

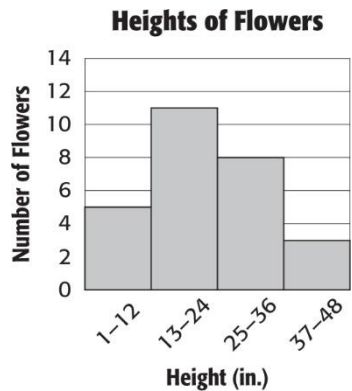
Class Period: 1 2 3 4 Date: \_\_\_\_\_

Use the following data to answer problems 1-4.

At the last five basketball games, Simone scored the following points: **12, 15, 9, 11, 8.**

- 1) What is the **mean** number of points Simone scored?
- 2) What is the **median** number of points Simone scored?
- 3) What is the **mode** of Simone's scores?
- 4) What is the **range** of Simone's scores?

Use the histogram below to answer questions 5-8.



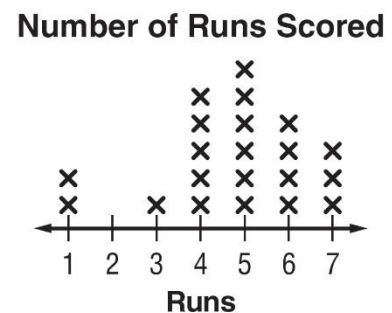
- 5) How many flowers were less than 25 inches in height?
- 6) How many flowers are in the 25-36 in. interval?
- 7) How many flowers were at least 13 inches tall?
- 8) Which interval had the fewest number of flowers?

For questions 9-13 indicate whether the question IS statistical (S) or NOT statistical (NOT).

- 9) How many times has each of my classmates been to the beach?
- 10) How many kids does Mrs. Katz teach?
- 11) How many pairs of pants does each of my family members own?
- 12) How many ice cream shops are in each town in Georgia?
- 13) How many songs are on Katherine's iPod?

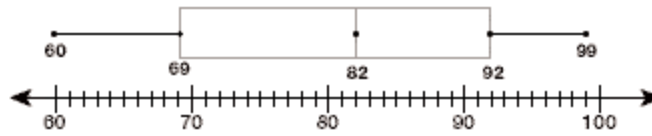
**Use the dot plot to answer problems 7 - 9:**

- 7) What is the **mode** of the data?
- 8) What is the **range** of the number of runs scored?
- 9) What is the **mean** number of runs scored?
- 10) Which measure of center is **MOST** affected by an outlier?

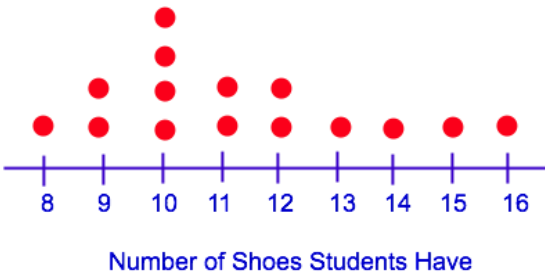


**Use the box plot to answer questions 11 – 14.**

**Number of Shoes sold per Day**

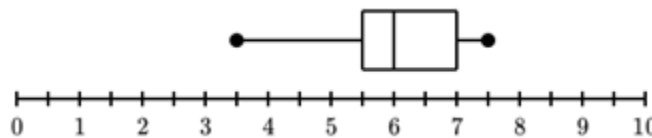


- 11) What percent of data is **GREATER THAN 69** (the lower quartile)?
- 12) What is the **median** of the data in the box plot?
- 13) What is the **IQR** of the data in the box plot?
- 14) Which **set of data** could be used to create the box plot?
- a. 60, 61, 61, 69, 79, 80, 99                      b. 60, 61, 61, 82, 83, 90, 99
- c. 60, 61, 61, 82, 79, 80, 100                      d. 0, 61, 61, 82, 79, 80, 99
- 15) How many **total people** were surveyed in the dot plot below?



**Use the box plot to answer questions 15 – 16.**

**Number of Baskets Made for Each Player on the Team**



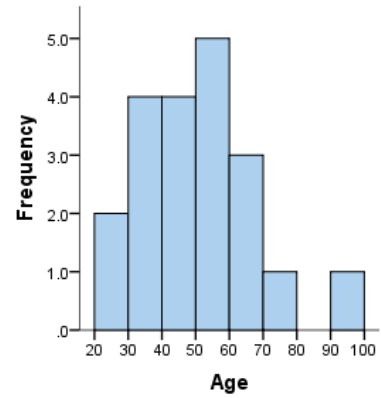
- 16) What is the **interquartile range** (IQR) in the box plot?
- 17) What percent of participants **scored more than 6 baskets**?
- 18) The 5-Number Summary of a box plot is shown below.  
 What is the **interquartile range** (IQR) for this set of data?  
 Minimum: 7    Lower Quartile (Q<sub>1</sub>): 9    Median: 18    Upper Quartile (Q<sub>3</sub>): 26    Maximum: 58

Use the histogram to the right to answer questions 18-19.

19) The histogram to the right shows the ages of the adults who went to see **Black Panther**.

Which statement about the histogram is **TRUE**?

- a. Most ages fall within the 60-70 interval.
- b. Most ages fall within the 20-30 interval.
- c. No person fell within the 80-90 age interval.
- d. No person fell within the 50-60 age interval.
- e. interval.



20) How many more people who went to see **Black Panther** are in their 40s than in their 70s?

### Constructed Response

21) The data below represents the number of students missing a pencil in all the classes on 6B.

10, 5, 6, 5, 11, 10, 2, 2, 3, 8, 16, 2, 10, 3, 8, 2

A. Make a **box plot** of the data.



B. Find one measure of spread. Clearly identify which measure of spread you are finding. \_\_\_\_\_

C. Find one measure of center. Clearly identify which measure of center you are finding. \_\_\_\_\_

D. Circle one of the choices below to describe the shape of the box plot.

- a. skewed left
- b. skewed right
- c. symmetrical