

Algebra 1B

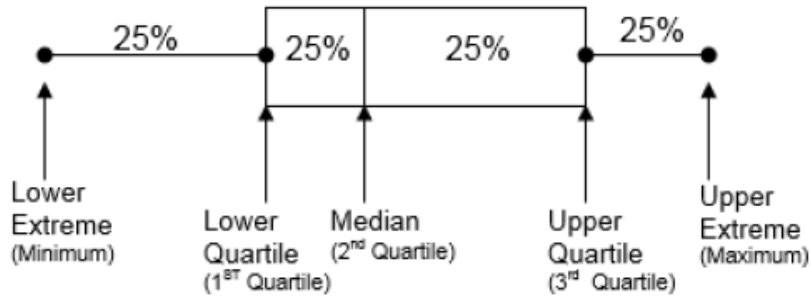
Date: _____

7.2 Interpreting Data

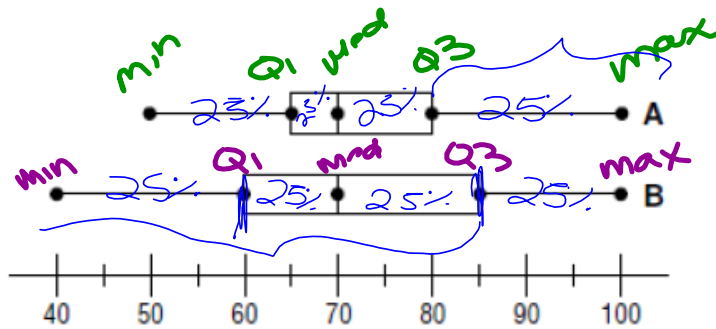
Basic Definitions

Mean	The average of the values (sum / # of values)
Median	The middle number (must be ordered least to greatest)
Mode(s)	The value(s) that occur the most
Lower Extreme	The smallest value (min)
Upper Extreme	The largest value (max)
Lower Quartile	The median of the 1st half (Q1)
Upper Quartile	The median of the 2nd half (Q3)
Range	Maximum - Minimum
Interquartile Range	Q3 - Q1 (range between the quartiles)

Box-and-Whisker Plots: A way of show the range of the data among the quartiles.



Example:



1. What is the median of each set: 70
2. Which plot has a lesser range: A: $100 - 50 = 50$ B: $100 - 40 = 60$ (A)
3. Which plot has the greater Interquartile range? (B)
4. What is the upper quartile of each set? A: 80 B: 85
5. What is the lower extreme of each set? A: 50 B: 40
6. What percent of the data in plot B is between 60 and 85? 50%
7. What percent of the data in plot A is greater than 80? 25%
8. What percent of the data in plot B is less than 85? 75%

Stem-and-Leaf Plots:

A way of displaying data values.

1.

Stem	Leaf
5	2 4 6 8
6	1 5 8
7	2 4 4 4 5 7
8	2 3 3
9	0 2 5 6

$$7 \mid 2 = 72$$

- a. What were the highest and lowest scores on the test?
52 and 96
- b. Which test score occurred most frequently? 74
- c. In which 10-point interval did most of the students score?
70-79
- d. How many students received a score of 70 or better?
13 Students
- e. How many students received a score less than 70?
7 Students

2.

Morning	Afternoon
	5 1 2 3 4 7 9
	6
8 8 4	7
9 4 0	8

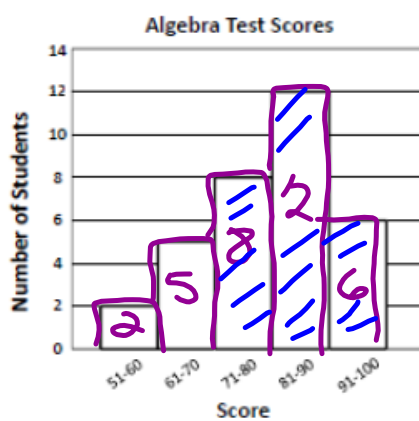
4 | 7 = 74% 5 | 1 = 51%

- a. What is the highest morning relative humidity? 89
- b. What is the lowest afternoon humidity? 51
- c. Does relative humidity tend to be higher in the morning or afternoon?

morning

Histograms: A way of grouping data by intervals.

1. The histogram below that shows data about scores on a history test.



- a. How many total students took the test?

33

- b. How many students scored at least a 71 on the test?

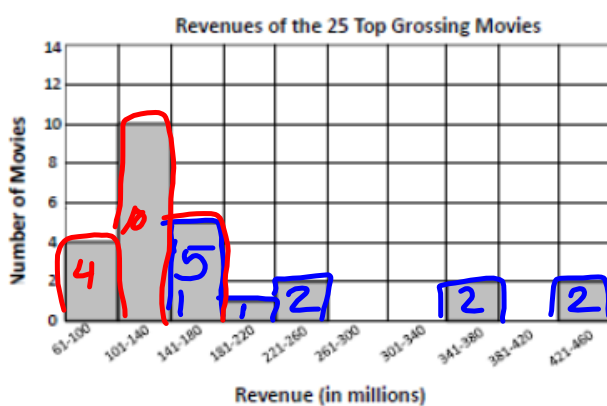
26

71 or more

- c. Can you determine the highest grade from the histogram?

No!

2. The histogram below shows data about movie revenues in a recent year.



- a. How many movies grossed at least \$141 million? 12

- b. How many movies grossed between \$61 million and \$180 million?

19

- c. Can you determine how many movies grossed between \$121 and \$140 million from the histogram?

NO!