

Name: _____
 Date: _____
 Class: _____

Algebra
 Unit 11
 HW 11-3

1) Use the following data to find the inter quartile range

52, 60, 66, 66 | 68, 72, 72, 73 | 74, 75, 80, 82 | 84, 91, 92, 98

$8-1 = \frac{9}{10}$
 $= \text{IQR}$

$\frac{66+66}{2} = 67$
 1st Q

$\frac{72+74}{2} = 73$
 Med

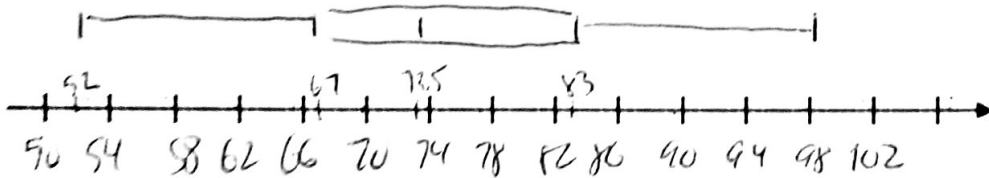
$\frac{82+84}{2} = 83$
 3rd Q

$\frac{16+1}{2} = 8.575$
 Med

2) Create a box plot for the data in #1

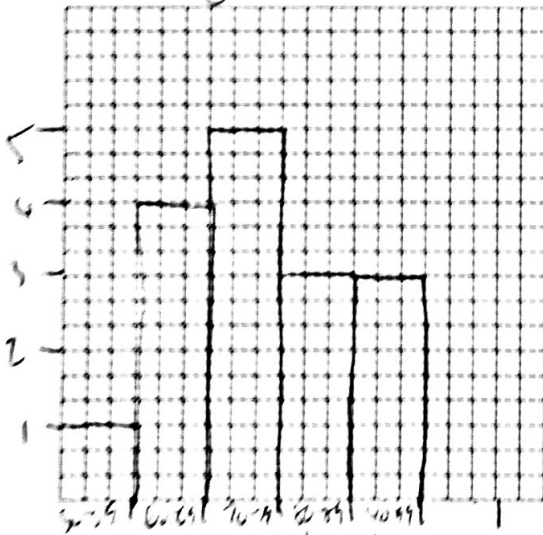
Grades

IQR
 $83-67 = 16$



3) If the data in #1 represented test grades on the last Spanish test, create a frequency histogram using intervals that make sense when displaying grades.

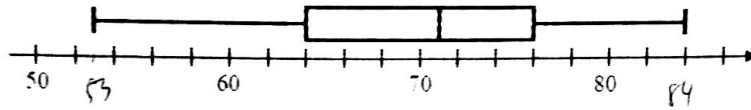
Grades



Interval	Freq
50-59	1
60-69	4
70-79	5
80-89	3
90-99	3
100-109	

4) Find the mean and mode for the data in #1

5) Use the box diagram below to answer the following questions:



(a) What was the median score on Mr. Ouimet math quiz?

70

(b) What was the range of the scores on Mr. Ouimet's physics quiz?

$$84 - 53 = 31$$

(c) What score was greater than or equal to 75% of all other scores on this quiz?

76

(d) Mr. Ouimet regularly sets the passing grade on his quizzes to be the score of the lower quartile. What is the passing grade on this quiz?

64

6)

Mr. Ramirez gives a math test and records the grades of his 17 students as follows:

$$\frac{17+1}{2} = 9^{\text{th}}$$

$$\frac{8+1}{2} = 4.5^{\text{th}}$$

67, 72, 74, 74, 78, 80, 80, 82, 85, 85, 86, 87, 90, 92, 92, 95, 98

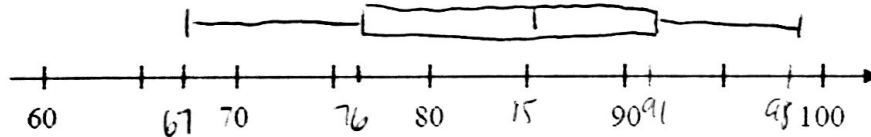
$$\frac{74+74}{2} = 74$$

ME

Create a box-and-whisker diagram of this data set below.

$$\frac{90+92}{2} = 91$$

Grades



7) Jim is trying to determine the average number of medications that the average person has taken in the last 10 years. He polls the people who reside in the Springville Nursing home and gets the following data. Find the mean, median, and mode for the data. Would this be a fair or unfair sample?

17, 18, 18, 19, 20, 21, 22, 23, 25, 25, 34, 47

$$\frac{21+22}{2} = 21.5$$

ME

$$ME \rightarrow \frac{12+1}{2} = 6.5^{\text{th}}$$

Mode \rightarrow 18 & 25

8) What is the % rank of 23 in the data in #7

$$\frac{8}{12} = 67\%$$

$$Mean \rightarrow \frac{269}{12} = 22.4$$