

April 28, 2015 <sup>4<sup>th</sup></sup>



**HE FOLLOWED ME HOME.  
CAN I KEEP HIM?**

*Jokerman*

## 4/28 - Mean, Median, Mode, Range, Quartiles and Interquartile Range

Definitions / how to find each:

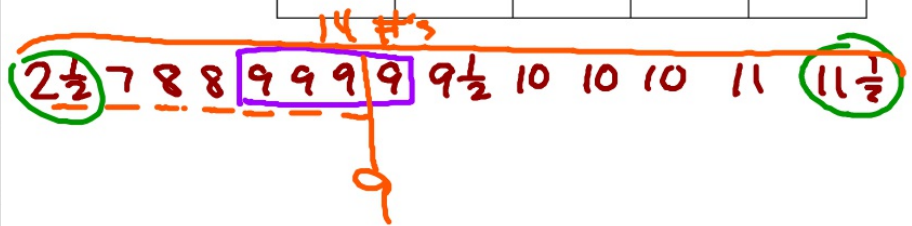
<p><b>Mean "average"</b> Add all the #'s then divide by how many there are</p>	<p><b>Median</b> # in the middle of an ordered list</p>	<p><b>Mode</b> The number that occurs the most</p>
<p><b>Range</b> Highest number minus the lowest number</p>	<p><b>Quartiles</b> #'s that divide the data into 4 equal parts (ordered list)</p>	<p><b>Interquartile Range</b> <math>Q3 - Q1</math></p>

First, you need some data!

Shoe size of the boys in class

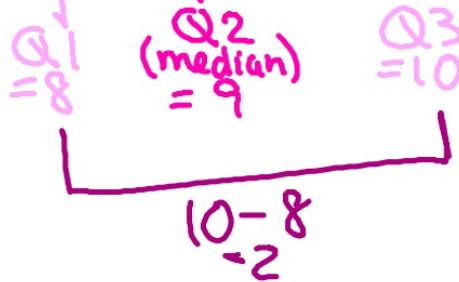
7	9	10½	9½	9½
<del>10</del>	<del>9</del>	<del>8</del>	<del>8</del>	<del>11</del>
10	9	10	9	

Mean	8.8
Median	9
Mode	9
$11\frac{1}{2} - 2\frac{1}{2}$ Range	9
Quartile 1	8
Quartile 2	9
Quartile 3	10
Interquartile Range	2



$$\text{mean} = \frac{123.5}{14} = 8.8$$

$$123.5 \div 14 = 8.821429$$

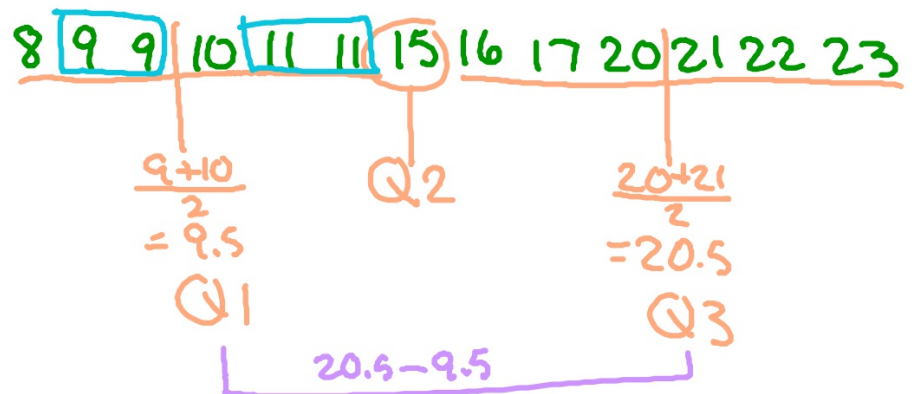


## Another one:

Mean	14.8
Median	15
Mode	9, 11
$23 - 8$ Range	15
Quartile 1	9.5
Quartile 2	15
Quartile 3	20.5
Interquartile Range	11

## Age of your oldest brother

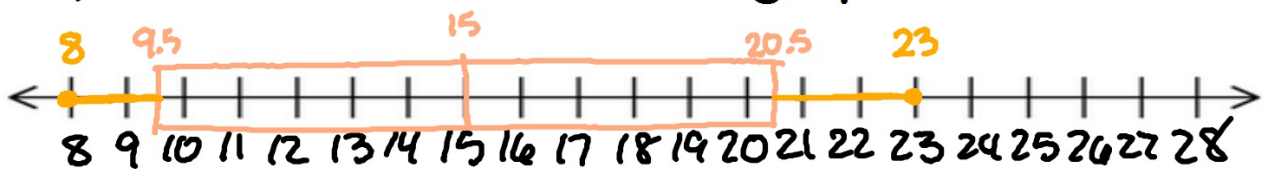
22	X	16	21	8
9	17	19	23	9
20	15	X		



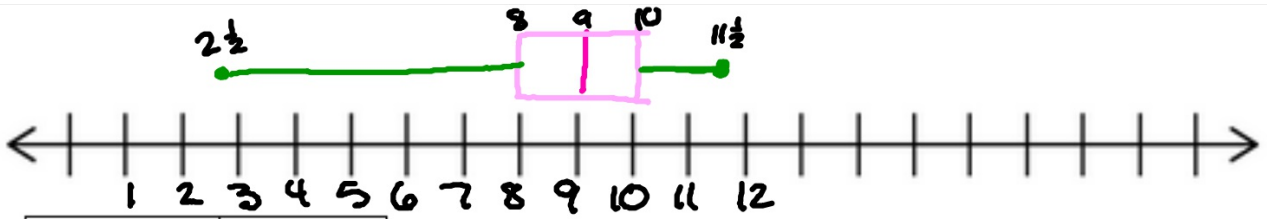
$$8 + 9 + 9 + 10 + 11 + 11 + 15 + 16 + 17 + 20 + 21 + 22 + 23 = 192$$

Average:  $192 \div 13 = 14.769231$

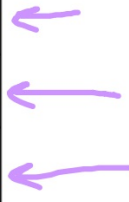
Now, make a box-and-whisker graph with the results



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Interquartile Range	2



# Homework

Gold WS 1

Due Wednesday