

April 23, 2015 1<sup>st</sup>  
2<sup>nd</sup>

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## 4/23 - Mean, Median, Mode, Range, Quartiles and Interquartile Range

Definitions / how to find each:

<p><b>Mean</b> Average Add all the #'s up then divide by how many there are</p>	<p><b>Median</b> Middle of all the #'s in an ordered list</p>	<p><b>Mode</b> The most common number</p>
<p><b>Range</b> how far apart the smallest + biggest #'s are</p>	<p><b>Quartiles</b> #'s that separate data into 4 equal parts</p>	<p><b>Interquartile Range</b> Q3 - Q1 Range of the 'Box'</p>

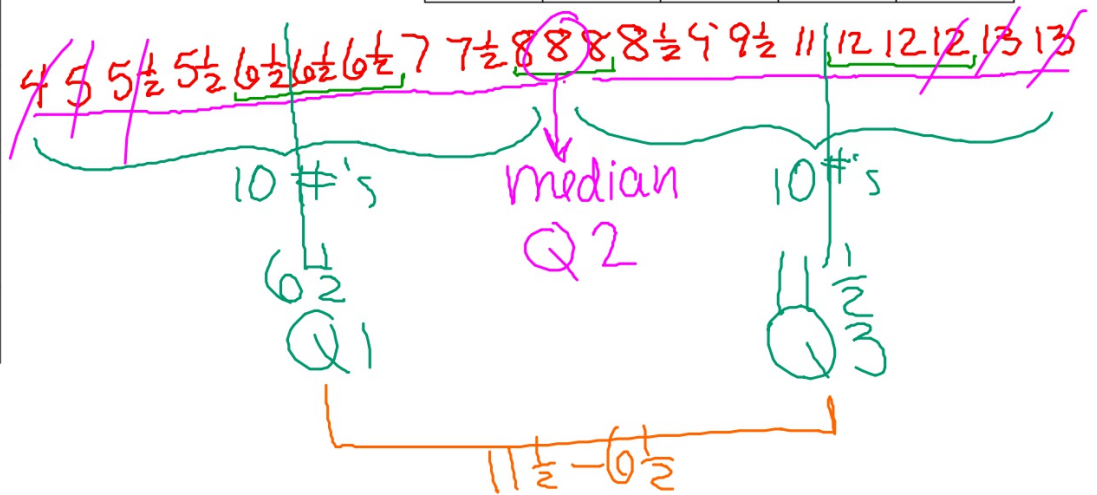
First, you need some data!

Shoe size of the boys in class

Mean	8.5
Median	8
Mode	6.5, 8, 12
13-4 Range	9
Quartile 1	6.5
Quartile 2	8
Quartile 3	11.5
Interquartile Range	5

12

6½	7½	13	12	6½
13	5	12	11	8
4	8	6½	5½	7
9½	8	8½	9	5½



## Another one:

Mean	16
Median	15
Mode	15
$32-12$ Range	20
Quartile 1	13
Quartile 2	15
Quartile 3	16.5
Interquartile Range	3.5

## Age of your oldest brother

14	13	12	15	15
13	18	32	12	15
18	15			

12 12 13 | 13 14 | 15 15 15 15 | 18 18 32

Q1  
13

Q2

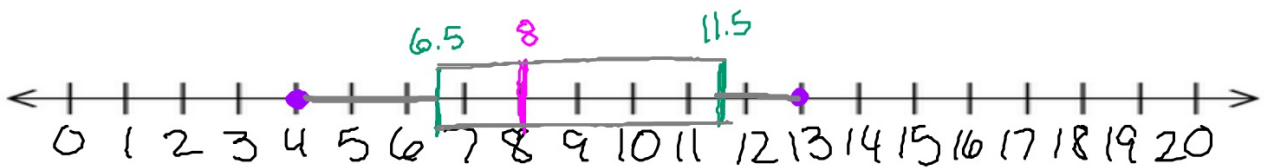
Q3  
 $\frac{15+18}{2}$

$$= \frac{33}{2}$$

$$= 16.5$$

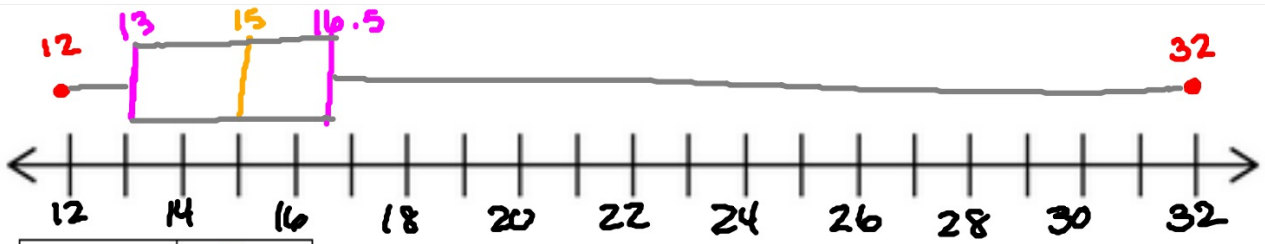
$$\frac{16.5 - 13}{}$$

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



Mean	8.5
Median	8
Mode	6.5, 8, 12
Range	13 - 4 = 9
Quartile 1	6.5
Quartile 2	8
Quartile 3	11.5
Interquartile Range	5





Mean	16
Median	15
Mode	15
$32 - 12$ Range	20
Quartile 1	13
Quartile 2	15
Quartile 3	16.5
Interquartile Range	3.5

Q1  
 3 4 | 5 6 6 9 10 | 12 14  
 Q3

median  
 2 4 5 | 9 10 12 | 15 16 17 | 18 20 51

Homework

Due