

# Mean Median Mode Range

Ex 1

6, 5, 4, 2, 3, 4, 2, 2

mean: Average  $6+5+4+2+3+4+2+2=28 \div 8=3.5$

Add all #'s divide by how many #'s you have

Median - middle # (put in order 1<sup>st</sup>) 2, 2, 2, 3, 4, 4, 5, 6  $\frac{3+4}{2} = \frac{7}{2} = 3.5$

Mode - most frequent occurring #: 2

Range biggest - smallest:  $6-2=4$

Ex 2

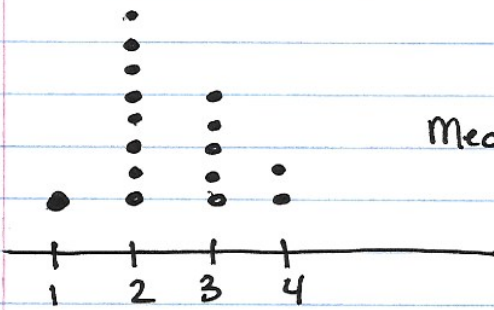
Maryland	1
La Salle	1
California	1
Louisville	3
Cincinnati	2

Mean:  $\frac{1+1+1+3+2}{5} = \frac{8}{5} = 1.6$

Median: 1, 1, 1, 2, 3 median 1

Mode: 1

Range:  $3-1=2$



1, 2, 2, 2, 2, 2, 2, 2, 3, 3, 3, 3, 5, 4, 4

Mean =  $\frac{1 + 2+2+2+2+2+2+2+3+3+3+3+5+4+4}{16} = \frac{40}{16} = 2.5$

Median  $\frac{2+2}{2} = \frac{4}{2} = 2$

Mode: 2

Range  $4-1=3$

mean: 2.5  
Med: 2  
Mode: 2  
Range: 3

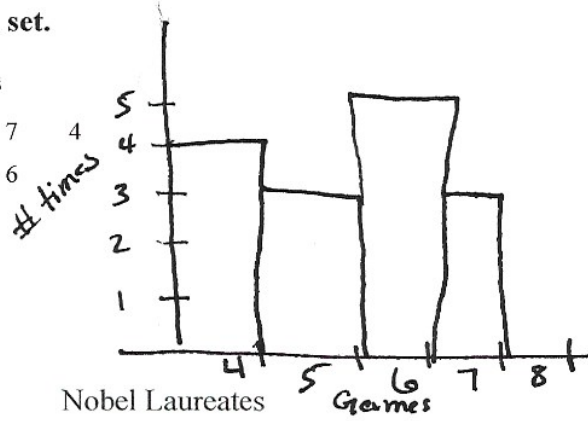
Notes Histogram and dot plots

Draw a histogram for each data set.

1) Games per World Series

6 4 6 5 7 4 7 4  
4 7 6 6 5 5 6

4		4
5		3
6		5
7		3

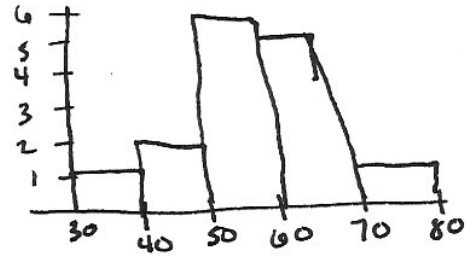


2)

Nobel Laureates

Name	Age	Name	Age	Name	Age
Michael Stuart Brown	44	Mairéad Corrigan-Maguire	32	Daniel Kahneman	68
Nadine Gordimer	68	Andrew Michael Spence	58	Robert Fry "Robin" Engle III	61
Paul Delos Boyer	79	Joseph Hooton Taylor Jr.	52	Antony Hewish	50
Robert Betts Laughlin	48	John Warcup Cornforth	58	Daniel Leigh McFadden	63
Leon Max Lederman	66	Joseph Eugene Stiglitz	58	Richard Axel	58

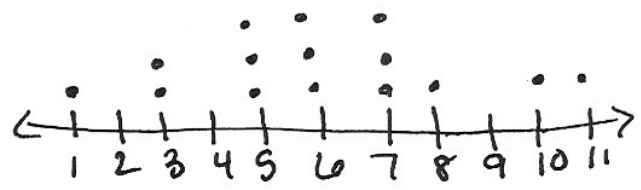
30-39		
40-49		2
50-59		6
60-69		5
70-79		1



Draw a dot plot for each data set.

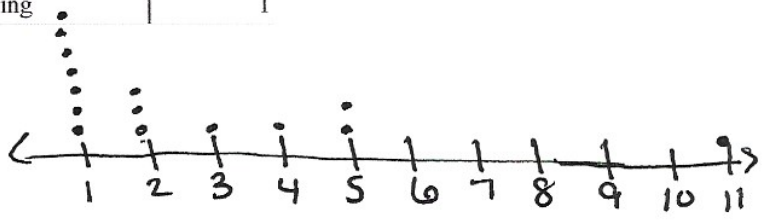
3) Goals in a Hockey Game

7 11 6 3 1 5 8 7  
10 6 7 5 6 5 3



4) Basketball Tournament Champions

School	Times Won	School	Times Won	School	Times Won
Marquette	1	UCLA	11	Oklahoma State	2
Stanford	1	NY City College	1	UTEP	1
UNLV	1	Louisville	3	Indiana	5
North Carolina State	2	Kansas	3	California	1
Cincinnati	2	Duke	5	Connecticut	4
Wyoming	1				



Notes: box & whisker plots

Date \_\_\_\_\_ Period \_\_\_\_\_

Find the 5 number summary, IQR and draw a box and whisker plot

5 Number Summary: minimum, lower Quartile, median, upper Quartile & max  
 $Q_1$   $Q_3$

IQR - interquartile Range: upper Quartile - lower Quartile

1) Age At Inauguration

President	Age	President	Age	President	Age	President	Age
Rutherford B Hayes	54	Calvin Coolidge	51	Chester A Arthur	51	Andrew Jackson	61
Theodore Roosevelt	42	Millard Fillmore	50	James A Garfield	49	Herbert Hoover	54
James Madison	57	Thomas Jefferson	57	James K Polk	49	John F Kennedy	43
Martin Van Buren	54	Franklin Pierce	48	Bill Clinton	46		

~~42, 48, 48, 48~~ ~~49, 49, 50~~ ~~51, 51, 54, 54, 54~~, ~~57, 57, 61~~

5 Number Summary

min = 42

$Q_1 = 48$

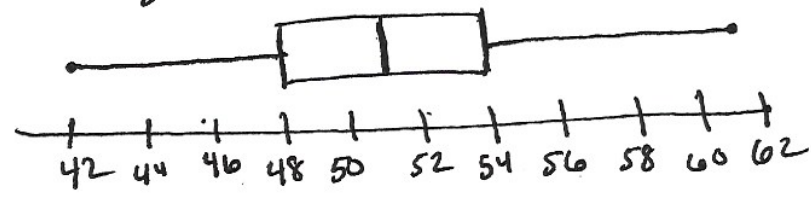
med = 51

$Q_3 = 54$

max = 61

$IQR = Q_3 - Q_1$

$54 - 48 = 6$



2) Test Scores

<del>46</del>	<del>48</del>	<del>46</del>	37	51	<del>42</del>	56
44	44	45	50	47	46	46
53	46	55				

~~37, 41, 42, 43, 44, 45, 46, 46~~

~~46, 46, 46, 47, 50, 51, 55, 56~~

5 Number Summary

Min = 37

$Q_1 = 43.5$

$Q_2$  Med = 46

$Q_3 = 48.5$

max = 56

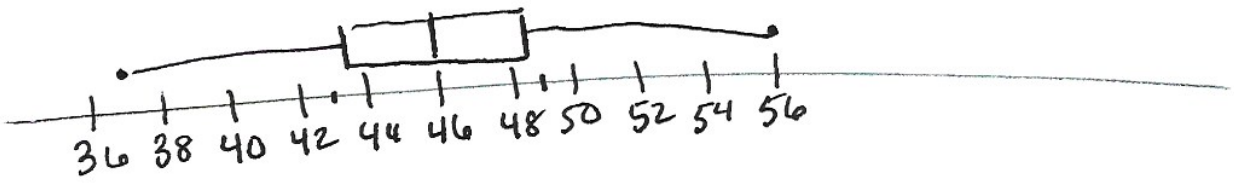
Med  $\frac{46+46}{2}$

$Q_1 = \frac{43+44}{2} = 43.5$

$Q_3 = \frac{47+50}{2} = 48.5$

$IQR = Q_3 - Q_1$

$48.5 - 43.5 = 5$



## Mean, Median, Mode, &amp; Range Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

Find the mode, median, mean, and range for each data set.

1) Goals in a Hockey Game

3 1 10 3 4 5 3 5  
5 4 9 5 5 6 5 8

2) Hits in a Round of Hacky Sack

19 8 18 4 9 11 5  
4 7 4 12 7 14 8  
6 5

3) Car Weights (kg)

1,105 1,290 1,710 1,635 1,795  
1,510 1,280 1,790 1,685 1,545  
1,565 1,020 925 1,770 1,710  
1,720

4) Test Scores

48 40 46 46 52 49 53  
44 48 45 51 45 47 51  
31 48

5)

## Life Expectancy

Country	Years	Country	Years	Country	Years	Country	Years
Malawi	58	Botswana	66	São Tomé and Príncipe	72	India	65
Algeria	73.12	Panama	77.8	Saudi Arabia	74.3	Slovenia	80
Mauritania	59.5	Azerbaijan	71.5	Cambodia	66	Chad	51
Moldova	71	Romania	74	Spain	82.5	Belarus	72.5
Bosnia & Herzegovina	76						

6)

## Nobel Laureates

Name	Age	Name	Age	Name	Age
Oliver Eaton Williamson Sr.	77	Leo Esaki	48	John Forbes Nash Jr.	66
Jean-Marie Gustave Le Clézio	68	George Andrew Olah	67	David Morris Lee	65
Edmond Henri Fischer	72	Richard Robert Ernst	58	James Earl Carter Jr.	78
Rolf Martin Zinkernagel	52	Douglas Dean Osheroff	51	Ei-ichi Negishi	75
Nelson Rolihlahla Mandela	75	John Lewis "Jan" Hall	71	Steven Chu	49
Carl Edwin Wieman	50				

7)

## Birth Rate

Country	Births/woman	Country	Births/woman	Country	Births/woman
Gabon	4.49	Somalia	6.08	Lebanon	1.74
Bolivia	2.8	St. Kitts & Nevis	1.78	Brazil	1.69
Antigua & Barbuda	2.03	Guinea-Bissau	4.3	South Sudan	5.43
Madagascar	4.28	Haiti	2.79	Luxembourg	1.77
Cook Islands	2.27	Fiji	2.51	Uruguay	1.84
Netherlands	1.78	Lithuania	1.29		

8)

Academy Awards

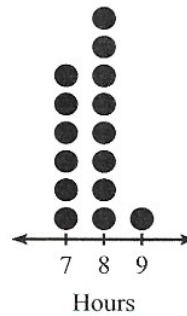
Movie	# Awards	Movie	# Awards
Casablanca	3	The Best Years of Our Lives	7
The English Patient	9	Gigi	9
One Flew over the Cuckoo's Nest	5	Oliver!	5
The Lost Weekend	4	Braveheart	5
Terms of Endearment	5	In the Heat of the Night	5
Wings	2	The Godfather Part II	6
Kramer vs. Kramer	5	From Here to Eternity	8
No Country for Old Men	4	Dances with Wolves	7
On the Waterfront	8		

9)

2012 Summer Olympics

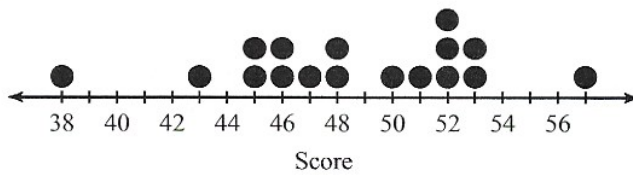
Country	Medals	Country	Medals
Great Britain	65	North Korea	6
United States	104	Switzerland	4
Germany	44	Ethiopia	7
Japan	38	Ukraine	20
Denmark	9	Argentina	4
Sweden	8	Romania	9
Kenya	11	Australia	35
Poland	10		

10) Hours Slept



11)

Test Scores



12)

Shoe Size

6.5	8	8.5	11	8	7	7.5
6	7.5	7	8	6	7	8
9	8					

## Dot Plot &amp; Histogram Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

**Draw a dot plot for each data set.**

1) # Words in Book Titles

4 1 5 2 5 2 1 2  
2 4 2 2 1 4 2

2) Goals in a Hockey Game

8 3 7 5 3 2 6 4  
4 1 7 3 10 2 7

3) Life Expectancy

State	Years	State	Years
South Dakota	74	Nebraska	80
South Carolina	78	Oklahoma	78
Nevada	81	Virginia	83
Maine	79	Colorado	81
New Hampshire	80	Pennsylvania	82
Connecticut	83	Tennessee	78
Delaware	77	Missouri	76
Texas	80		

4) Hits in a Round of Hacky Sack

6 12 12 3 8 1 11  
8 12 3 14 8 4 17  
9 8 6

Draw a histogram for each data set.

5) Games per World Series  
4 6 6 7 5 7 6 4  
7 5 5 7 7 7 4

6) Goals in a Hockey Game  
5 7 3 7 5 7 6 11  
11 5 9 5 11 5 7 3  
4

7) Shoe Size  
7.5 11 9 8.5 6 11 7.5  
6.5 6 9 8 10 9.5 9  
8 7.5 9

8) # Words in Book Titles  
3 3 5 2 2 5 2 1  
3 2 2 1 4 2 6 3  
6

## Quartile &amp; Box and Whisker Plot Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

Draw a box-and-whisker plot for each data set. Also find the 5 number summary and IQR.

1)

## Basketball Tournament

School	Appearances	School	Appearances	School	Appearances
Mississippi	8	Richmond	9	Portland State	2
Saint Mary's (CA)	8	Oklahoma	29	Wright State	2
Wayne State	1	Cal State Northridge	2	Michigan	21
Louisiana Tech	5	Alabama A&M	1	Georgia	10
George Washington	11	Georgia State	3	Texas A&M-Corpus Christi	1
Iowa State	17				

2) Hits in a Round of Hacky Sack

2 7 12 5 4 6 5 6  
8 5 6 4 10 3 12

3)

## # Words in Book Titles

1 6 5 6 1 3 3 2  
2 3 6 3 1 2 3 2  
2

4) Games per World Series

4 7 5 6 7 4 7 4  
6 4 7 6 7 6 7 7  
6

5)

## Test Scores

55 38 40 42 51 46 42  
32 53 51 46 46 51 56  
33

6)

## Basketball Tournament

School	Appearances	School	Appearances	School	Appearances
Central Connecticut State	3	UNC Greensboro	2	Eastern Michigan	4
Montana State	3	George Washington	11	South Alabama	8
Stanford	17	Arkansas-Little Rock	4	Maryland	24
Texas Southern	6	Colorado	13	Duke	39
Portland State	2	South Dakota State	2	Seton Hall	9