

Week 2: Measures of Spread

Date _____ Period _____

Find the mode, median, mean, range, lower quartile, upper quartile, interquartile range, sample variance, population variance, sample standard deviation, and population standard deviation for each data set.

1) Hits in a Round of Hacky Sack

9 12 8 12 4 6 19
 6 5 3 8 11 3 12
 3

2)

Birth Rate

Country	Births/woman
North Korea	1.98
St. Vincent & the Grenadines	1.84
Brunei	1.82
Uruguay	1.84
Ghana	4.09
Trinidad & Tobago	1.71

Country	Births/woman
The Bahamas	1.97
Lithuania	1.29
Cambodia	2.66
Chile	1.84
Central African Rep.	4.46
Russia	1.61

Country	Births/woman
Western Sahara	4.07
Liechtenstein	1.69
Hungary	1.42
Taiwan	1.11
Australia	1.77

3)

Hours Slept

5.25 6 7 7 7 5.25
 8.25 5.75 6.25 5.25 7 6.5
 6.75 8 8.25 6.25

4)

Car Masses (kg)

1,780 1,165 1,265 1,740 1,550
 1,030 1,115 1,185 1,555 1,230
 1,680 1,410 1,280 1,670 1,685
 1,615 1,555

5)

Life Expectancy

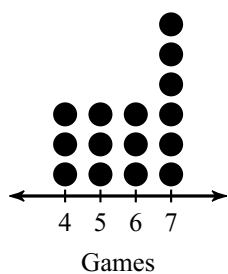
Country	Years
Bahrain	77
Brazil	76.2
Czech Republic	78
Latvia	74.5

Country	Years
Croatia	77.5
Egypt	73.2
Solomon Islands	73
Cuba	79.4

Country	Years
Slovakia	76.3
Guatemala	71.5
São Tomé and Príncipe	72
United Arab Emirates	79.2

Country	Years
Malta	81
India	65
Samoa	74
Montenegro	74.5

6) Games per World Series

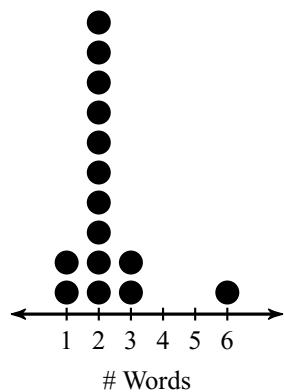


7)

Goals in a Hockey Game

6	5	5	6	9	6	5	7
3	5	7	5	4	11	6	3

8) Length of Book Titles



9)

Hours Slept

8.25	7.5	6	4.75	5.5	5
5.75	6.75	7.25	9	6.5	6
5.75	7	7	8.25	8.25	

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1) Hits in a Round of Hacky Sack

9 12 8 12 4 6 19
 6 5 3 8 11 3 12
 3

Mode = 3 and 12, Median = 8,

Mean = 8.07, $Q_1 = 4$, $Q_3 = 12$,

IQR = 8, $s = 4.53$ and $\sigma = 4.37$

2)

Birth Rate

Country	Births/woman
North Korea	1.98
St. Vincent & the Grenadines	1.84
Brunei	1.82
Uruguay	1.84
Ghana	4.09
Trinidad & Tobago	1.71

Country	Births/woman
The Bahamas	1.97
Lithuania	1.29
Cambodia	2.66
Chile	1.84
Central African Rep.	4.46
Russia	1.61

Country	Births/woman
Western Sahara	4.07
Liechtenstein	1.69
Hungary	1.42
Taiwan	1.11
Australia	1.77

Mode = 1.84, Median = 1.84, Mean = 2.19, $Q_1 = 1.65$, $Q_3 = 2.32$, IQR = 0.67, $s = 1.02$ and $\sigma = 0.99$

3)

Hours Slept

5.25 6 7 7 7 5.25
 8.25 5.75 6.25 5.25 7 6.5
 6.75 8 8.25 6.25

Mode = 7, Median = 6.625,

Mean = 6.61, $Q_1 = 5.875$, $Q_3 = 7$,

IQR = 1.125, $s = 1$ and $\sigma = 0.96$

4)

Car Masses (kg)

1,780 1,165 1,265 1,740 1,550
 1,030 1,115 1,185 1,555 1,230
 1,680 1,410 1,280 1,670 1,685
 1,615 1,555

Mode = 1,555, Median = 1,550,

Mean = 1,441.76, $Q_1 = 1,207.5$,

$Q_3 = 1,675$, IQR = 467.5, $s = 245.06$

and $\sigma = 237.74$

5)

Life Expectancy

Country	Years
Bahrain	77
Brazil	76.2
Czech Republic	78
Latvia	74.5

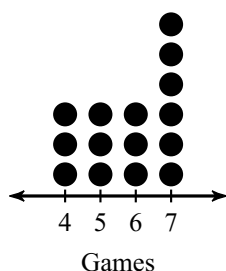
Country	Years
Croatia	77.5
Egypt	73.2
Solomon Islands	73
Cuba	79.4

Country	Years
Slovakia	76.3
Guatemala	71.5
São Tomé and Príncipe	72
United Arab Emirates	79.2

Country	Years
Malta	81
India	65
Samoa	74
Montenegro	74.5

Mode = 74.5, Median = 75.35, Mean = 75.14, $Q_1 = 73.1$, $Q_3 = 77.75$, IQR = 4.65, $s = 3.87$ and $\sigma = 3.75$

6) Games per World Series



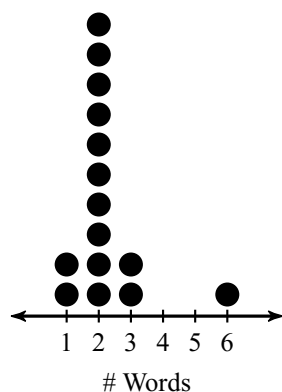
Mode = 7, Median = 6,
Mean = 5.8, $Q_1 = 5$, $Q_3 = 7$,
IQR = 2, $s = 1.21$ and $\sigma = 1.17$

7) Goals in a Hockey Game

6	5	5	6	9	6	5	7
3	5	7	5	4	11	6	3

Mode = 5, Median = 5.5,
Mean = 5.81, $Q_1 = 5$, $Q_3 = 6.5$,
IQR = 1.5, $s = 2.04$ and $\sigma = 1.98$

8) Length of Book Titles



Mode = 2, Median = 2,
Mean = 2.27, $Q_1 = 2$, $Q_3 = 2$,
IQR = 0, $s = 1.16$ and $\sigma = 1.12$

9) Hours Slept

8.25	7.5	6	4.75	5.5	5
5.75	6.75	7.25	9	6.5	6
5.75	7	7	8.25	8.25	

Mode = 8.25, Median = 6.75,
Mean = 6.74, $Q_1 = 5.75$, $Q_3 = 7.875$,
IQR = 2.125, $s = 1.24$ and $\sigma = 1.2$