Pre-Algebra
Assignment

Find the median, mean, range, lower quartile, upper quartile, and interquartile range for each data set.

1) Monthly Revenue

Stem	Leaf
2	0 6
3	1 2 5 6 6 8 9
4	1 6 7
5	2 8
6	
7	7

Key: 3|6 = 36,000

2)   Large Cities

City	Population	City	Population	City	Population	City	Population
Nairobi	3,138,369	St. Petersburg	5,131,967	Hanoi	6,844,100	Shenzhen	10,467,400
Suzhou	4,327,066	Santiago	5,743,719	Ho Chi Minh City	7,681,700	Lagos	17,060,307
Alexandria	4,616,625	Foshan	6,151,622	Bangkok	8,280,925	Beijing	21,150,000
Abidjan	4,765,000	Rio de Janeiro	6,429,923	New York City	8,405,837	Karachi	23,500,000
Chennai	4,792,949						

3) Times Winning the Basketball Tournament

Times Won
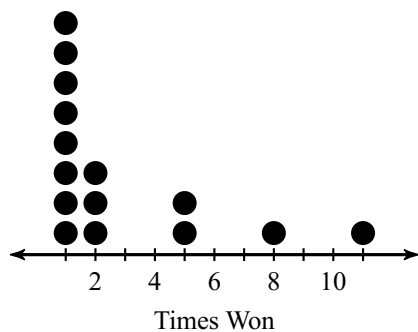
4)   Mountain Heights

Name	Feet		Name	Feet		Name	Feet		Name	Feet
Lupghar Sar	23,622		Churen Himal	24,229		Saser Kangri III	24,590		Shispare	24,970
Siguang Ri	23,980		Yangra	24,350		Kula Kangri	24,731		Saser KangriI	25,171
Labuche Kang	24,170		Gangapurna	24,459		Changtse	24,747		Khunyang Chhish	25,666
Sherpi Kangri	24,213		Teram Kangri I	24,482		Gongga Shan	24,790			

Draw a stem-and-leaf plot for each data set.

5)   Melting Point

Substance	°C		Substance	°C
Potassium	63.4		Cobalt	1,495
Phosphorus	44.2		Nickel	1,455
Tin	231.9		Calcium	842
Argon	189.2		Uranium	1,132
Magnesium	650		Iodine	113.7
Radium	699.8		Water	0
Titanium	1,668		Sulphur	115.2
Carbon	3,550			

6)   Monthly Revenue

42,470	43,030	47,380	33,890
34,520	29,130	41,070	32,460
52,350	42,290	24,830	60,610
47,490	58,610	42,670	

7)   Annual Household Income

13,450	24,450	22,150	12,400
31,500	12,450	8,900	11,150
27,800	40,600	38,700	23,350
10,100	24,150	30,650	13,800

8)   Annual Precipitation (Inches)

31.6	27.6	57	15.2	61
39.6	22.2	61.4	30	41.2
44.6	26.2	23	59.2	43.4
52				

9)   Basketball Tournament

School	Appearances
Minnesota	8
Nevada	6
Mississippi	8
UC Irvine	1
Norfolk State	1
Rice	4

School	Appearances
Virginia Tech	8
Texas Southern	6
Syracuse	37
VMI	3
Yale	3

School	Appearances
Alcorn State	6
Montana State	3
Kansas	44
Indiana State	4
Loyola-Chicago	5

10)   Annual Household Income

22,750	13,950	12,850	17,300
15,000	28,650	19,250	14,000
11,050	14,650	37,400	7,350
28,650	25,700	8,850	24,850

Answers to Assignment

1) Median = 38,000,
   Mean = 40,933.33,
   Range = 57,000, Q_1 = 32,000,
   Q_3 = 47,000 and IQR = 15,000

2) Median = 6,429,923, Mean = 8,734,559.35, Range = 20,361,631, Q_1 = 4,778,974.5,
   Q_3 = 9,436,618.5 and IQR = 4,657,644

3) Median = 1, Mean = 2.87, Range = 10,
   Q_1 = 1, Q_3 = 5 and IQR = 4

4) Median = 24,482, Mean = 24,544.67, Range = 2,044, Q_1 = 24,213, Q_3 = 24,790 and
   IQR = 577

5)
Stem	Leaf
0	0 0 1 1 1 2 2 7 7 8
1	1 5 5 7
2	
3	6

Key: 1|5 = 1,500

6)
Stem	Leaf
2	5 9
3	2 4 5
4	1 2 2 3 3 7 7
5	2 9
6	1

Key: 4|1 = 41,000

7)
Stem	Leaf
0	9
1	0 1 2 2 3 4
2	2 3 4 4 8
3	1 2 9
4	1

Key: 1|3 = 13,000

8)
Stem	Leaf
1	5
2	2 3 6 8
3	0 2
4	0 1 3 5
5	2 7 9
6	1 1

Key: 3|2 = 32

9)
Stem	Leaf
0	1 1 3 3 3 4 4 5 6 6 6 8 8 8
1	
2	
3	7
4	4

Key: 3|7 = 37

10)
Stem	Leaf
0	7 9
1	1 3 4 4 5 5 7 9
2	3 5 6 9 9
3	7

Key: 1|4 = 14,000