## Assignment 2.4—part 1: p.70-71 #2,6,10,12

2. What is a scatterplot? What type of data is required for a scatterplot? What characteristic of the data can be better understood by looking at a scatterplot?

## 6. The following data set (from Data set 6 in appendix B) compares brain volumes (cu cm) and IQ scores.

Brain vol.	1005	963	1035	1027	1281	1272	1051	1079	1034	1070	1173	1079	1067	1104	1347	1439	1029	1100	1204	1160
IQ	96	89	87	87	101	103	103	96	127	126	101	96	93	88	94	85	97	114	113	124

## a. Construct a scatterplot.



b. A simple hypothesis is that people with larger brains are more intelligent and thus have higher IQ scores. Does the scatterplot support the hypothesis?

10. Listed below are the numbers of home runs in a major league baseball for each year beginning with 1990 (listed in order by row).

3317	3383	3038	4030	3306	4081	4962	4640	5064	5528
5693	5458	5059	5207	5451	5017	5386	4957	4878	4655

a. Construct a time series graph:



b. Describe the trend in the data.

12. The following data set (from data set 14 in appendix B) shows the greenhouse gas (GHG) emissions from a sample of cars.

6.6	6.3	7.7	6.4	6.6	6.1	8.3	8.0	7.1	8.3	7.7
8.0	8.0	7.3	8.0	8.7	10.2	9.6	8.7	9.6	10.2	

a. Construct a dotplot of the data:

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	5.5	6.0	6.5	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	

b. Does the configuration of the points appear to suggest that the amounts are from a population with a normal distribution? Why or why not?