Math 107 Statistics – Activity #1 – Graphing with Excel

Use excel to draw the requested graph of the following datasets

1) Make a bar graph of the populations of the five most populous states (2010 census)

State	Population
California	37.3 million
Texas	25.1 million
New York	19.4 million
Florida	18.8 million
Illinois	12.8 million

2) Construct a pie chart for the five leading tourist destinations (in millions of visitors) shown below

Country	Visitors(millions)
France	76.8
U.S.	59.7
China	55.7
Spain	52.7
Italy	43.6

In problems 3-5, consider the following datasets

a) State whether the variables are qualitative or quantitative
b) Draw a bar chart or pie chart if the data are qualitative
c) Draw a histogram or line chart if the data are quantitative
d) Write a paragraph discussing the interesting features of the graph

3) The following table shows the revenue (in millions of dollars) of the leading U.S. food and drug retailers in 2011

Store	Revenue
CVS	96.4
Kroeger	82.2
Walgreens	67.4
Safeway	41
Supervalu	40.6
Rite Aid	25.1

4) The following data is the ages of U.S Presidents at their inauguration

57	61	57	57	58	57	61	54	68	51
49	64	50	48	65	52	56	46	54	49
51	47	55	55	54	42	51	56	55	51
54	51	60	62	43	55	56	61	52	69
46	54	47	55						

5) Nineteen immigrants to the U.S were asked how many years, to the nearest year, they have lived in the U.S. The data are as follows:

2; 5; 7; 2; 2; 10; 20; 15; 0; 7; 0; 20; 5; 12; 15; 12; 4; 5; 10

In problems 6-8,

A. Make a scatter diagram of the data
B. State whether the two variables appear to be correlated and if so state whether the correlation is positive, negative, strong or weak
C. Suggest a reason for the correlation or lack of correlation. If you suspect causality, discuss what further evidence you need to establish it.

6) The following data gives the number of home runs hit and the batting average for the Most Valuable Players in baseball from 2011 to 2015

41	.330
48	.321
58	.313
34	.321
30	.296
54	.314
37	.357
17	.326
47	.327
28	.365
37	.324
32	.359
33	.332
24	.336
44	.330

7) The following data gives the literacy rate in given countries and the infant mortality rate in the same country

Country	Literacy Rate	Infant Mortality Rate (per 100 votes)
Afghanistan	28	152
Austria	98	4
Burundi	59	60
Columbia	93	19
Ethiopia	43	81
Germany	99	4
Liberia	58	138
New Zealand	99	5
Turkey	87	26
United States	99	6

8) The following table gives the average teacher salary and the expenditure on public education per pupil for ten states in 2010

State	Average Teacher Salary ($)	Per-Pupil Expenditure ($)
Alabama	47571	9001
Alaska	59672	11000
Arizona	46952	6170
Connecticut	64350	14472
Massachusetts	69273	14766
North Dakota	42964	8541
Oregon	55224	10476
Texas	48261	9227
Utah	45885	6859
Wyoming	55861	15345