Using the following data,

US Electrical Energy Consumption

State	gWh	State	gWh
Alabama	143,826	Montana	28,931
Alaska	6,821	Nebraska	32,442
Arizona	113,340	Nevada	32,669
Arkansas	54,596	New Hamps.	23,277
California	210,847	New Jersey	62,671
Colorado	53,907	New Mexico	35,985
Connecticut	33,171	New York	145,878
Delaware	8,534	North Carolina	130,115
Florida	225,416	North Dakota	31,224
Georgia	145,155	Ohio	155,155
Hawaii	11,533	Oklahoma	72,819
Idaho	11,484	Oregon	55,077
Illinois	200,260	Pennsylvania	226,088
Indiana	130,637	Rhode Island	7,049
Iowa	49,789	South Carolina	103,402
Kansas	50,122	South Dakota	5,991
Kentucky	97,225	Tennessee	95,113
Louisiana	92,578	Texas	405,492
Maine	16,128	Utah	45,372
Maryland	50,197	Vermont	5,823
Massachusetts	47,075	Virginia	78,360
Michigan	119,309	Washington	106,990
Minnesota	54,477	West Virginia	93,933
Mississippi	50,043	Wisconsin	63,390
Missouri	91,153	Wyoming	43,144

Source:
http://www.eia.doe.gov/cneaf/electricity/epa/generation_state.xls

Although a typical single-family home may use about 13,000 kiloWatt-hours (kWh) in one year, when you multiply this by the number of homes in the US, and all of the industries that use electricity, the electrical energy consumption for a country like the United States is simply staggering!

According to the Department of Energy, the total United States consumption of electrical energy during 2007 was 4,154,013 gigaWatt-hours. The state-by-state breakdown is shown in the table to the left.

Because these energy units are so enormous, we need to re-write them into a simpler form by using the prefix multipliers 'mega;' and 'giga'. There are 1,000 kWh in one megaWatt-hr (mWh), and 1,000 mWh in one gigaWatt-hour (gWh).

The example of the average, single-family home consumes 13,000 kWh which equals 13 mWh, or 0.013 gWh.

construct,

a) A frecuency table for this data using 7 class intervals. Use an excel spreadsheet.
b) Examine the graphs, boxplots and descriptive statistic functions you can find using an excell spreadsheet software
c) Find, mean, median, mode, Q1, Q2, Q3, P60, P80, P35, P16.
d) Find the Intequartile range and the range.
e) Draw the histogram, polygon of frequencies, pie chart, box and whisker plot.
f) Find the standard deviation and the variance.