1.Given the situation described, identify the type of sampling involved. At a newspaper office, staffers are classified by the department in which they work. Then random samples from each department are taken.

a. random sampling

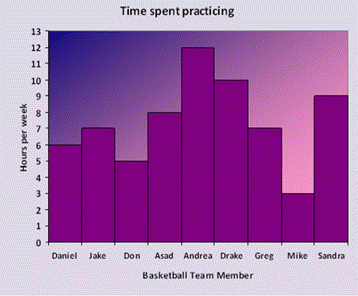
b. systematic sampling

c. convenience sampling

d. stratified sampling

e. cluster sampling

3. Given the histogram below, create a grouped frequency distribution



5. The number of surfer’s special burritos served was sampled during a lunch period 11:00 a.m. – 2:30 p.m. at a taco shop on a weekday. Below is the sample:

41 63 39 56 46 55 38 66 41 48

60 57 48 31 71 56 60 39 52

Construct a stem and leaf plot of the data.

**6.**Below are the home states of 21 college professors.  
   
New Jersey      Ohio         Michigan           South Carolina    Nebraska  
South Carolina  Ohio         South Carolina     Pennsylvania      Michigan  
Georgia         New Jersey   Wisconsin          Georgia           Ohio  
Florida         Georgia      New Jersey         South Carolina    Wisconsin  
Pennsylvania  
         
  i.     Make a frequency table using these 9 states:   
   
Florida   
Georgia   
Michigan   
Nebraska  
New Jersey  
Ohio  
Pennsylvania  
South Carolina  
Wisconsin  
   
ii.     What is (are) the mode(s)?  
iii.     Does it make sense to talk about the average for this data? Why or why not?  
iv.     Using your frequency table draw a pie chart to display the distribution of home states by filling in the following table:

|  |  |  |  |
| --- | --- | --- | --- |
| Home State | Frequency | Percentage of total | Measure of Central Angle (in degrees) |
| Florida |  |  |  |
| Georgia |  |  |  |
| Michigan |  |  |  |
| Nebraska |  |  |  |
| New Jersey |  |  |  |
| Ohio |  |  |  |
| Pennsylvania |  |  |  |
| South Carolina |  |  |  |
| Wisconsin |  |  |  |

Given the diagram below, find P upside down U Q. Write in correct set notation.

