

Table Number: \_\_\_\_\_

Group Name: \_\_\_\_\_

Group Members: \_\_\_\_\_

## Random Sampling Methods

**Key Understanding:** every member is equally likely to be chosen

**Simple Random Sampling** – Use a random number generator or a random number table to determine which members are chosen.

**Cluster Sampling** – Population is divided into clusters reflecting the variability within population and then a certain number of clusters are randomly selected and every member of the selected cluster is surveyed.

**Systematic Sampling** – Sampling every  $k^{\text{th}}$  member of a population after randomly determining the first individual by selecting a random number between 1 and  $k$ .

**Stratified Random Sampling** – The population is divided into two or more groups (strata) according to some criterion and subsamples are randomly chosen from each strata.

Identify the type of sampling used in each of the following vignettes and explain your choice:

1. Ohio wants to gauge public reaction to a proposed tax increase. They randomly select individuals from rural areas, randomly select individuals from suburban areas, and randomly select individuals from urban areas.  
Type of sampling: \_\_\_\_\_  
Explain:
2. Bauman's Orchard wants to determine the approximate yield of its peach trees. They divide the orchard into 25 subsections and randomly select 4. They sample all the trees within the 4 subsections to approximate the yield of the orchard. Type of sampling: \_\_\_\_\_  
Explain:
3. Every hundredth hamburger manufactured is checked to determine its fat content.  
Type of sampling: \_\_\_\_\_  
Explain:
4. Design consultants are selected using random numbers in order to determine annual salaries.  
Type of sampling: \_\_\_\_\_  
Explain:
5. A survey regarding download time on a certain web site is administered on the internet by a market research firm to anyone who is willing to respond to the survey. Type of sampling: \_\_\_\_\_  
Explain: