

3. Retailers at the local shopping mall want to survey their Saturday customers about their satisfaction with the eating facilities within the mall. One merchant went to business school and learned about the importance of statistics, so he wants to obtain a random sample. He proposes the following method: Interviewers should stand at the center of the mall and select the first 100 people who walk by after 11:00 a.m. He believes this approach will provide a random sample because the interviewers will not exercise any decision over whether or not to include specific individuals in the sample.
- What kind of sample would the merchant really get?
 - Describe how the merchant could modify this approach to use version of systematic sampling.
 - If the retailer were to use stratified random sampling, what strata would you recommend that he choose?
4. The Educational Testing Service (ETS) needed a representative sample of college students. ETS first divided all colleges into groups of similar ones (such as public colleges with more than 25,000 students, small private schools, and so on) and then selected a few schools at random from each group. Each school then provided a list of students that they selected by selecting every 6th student.
- What kind of sample did the ETS perform?
 - What kind of sample did the school perform?
 - Do you feel that the ETS would get a valid sample of students? Why or why not?