1. Suppose you have been asked to organize a survey on the attitudes of undergraduate students towards Winona State University’s commitment to sustainability.
   
   a. Identify the target population and the study population.
   b. Identify the sampling frame, if one exists. If one doesn’t exist, how would you suggest a sampling frame be created?
   c. How would you go about obtaining a simple random sample? Be specific.
   d. Suppose you want to obtain a stratified random sample, instead. What variable(s) would you use to stratify the groups? How would you go about obtaining this stratified random sample? Be specific.
   e. Why would the stratified method be superior to simple random sampling?
   f. Suppose your friend suggests that you simply go up to groups of students entering Kryzsko Commons and ask them a series of survey questions before they enter. What type of sampling method is this? What possible biases might come from conducting the survey in this way?

2. A water management board wants to estimate the total amount of water used for irrigation in one growing season among all farms in a certain management district. A list of farms is available in which the farms are listed by acreage, from smallest to largest. Would you suggest using a simple random sample or a stratified random sample of farms? Explain.

3. Suppose that in a certain community an opinion poll was conducted to determine public sentiment toward a bond issue in an upcoming election. The objective of the survey was to estimate the proportion of voters in the community who favored the bond issue.
   
   a. Identify the target population.
   b. Suppose the individual voter is specified as the sampling unit. Identify a sampling frame that might be used, and clearly identify the study population.
   c. Suppose that the household is specified as the sampling unit. Identify a sampling frame that might be used, and clearly identify the study population.
   d. Suppose you want to obtain a stratified random sample. What variable(s) might you use to create strata?