1. A fitness center is interested in the mean amount of time a client exercises in the center each week. Identify the following:
   a. the population, b. the sample, c. the parameter, d. the statistic, e. the variable, and f. the data, give examples.

2. A politician is interested in the proportion of voters in his district who think he is doing a good job. Identify the following:
   a. the population, b. the sample, c. the parameter, d. the statistic, e. the variable, and f. the data. Give examples.

3. For each of the following, identify the type of data that would be used to describe a response (quantitative discrete, quantitative continuous, or qualitative), and give an example of the data.
   a. number of tickets sold to a concert
   b. percent of body fat
   c. favorite baseball team
   d. time in line to buy groceries
   e. number of students enrolled at Evergreen Valley College

4. For each of the following, Determine the type of sampling used (simple random, stratified, systematic, cluster, or convenience).
   a. A group of test subjects is divided into twelve groups; then four of the groups are chosen at random.
   b. A market researcher polls every tenth person who walks into a store.
   c. The first 50 people who walk into a sporting event are polled on their television preferences.
   d. A computer generates 100 random numbers, and 100 people whose names correspond with the numbers on the list are chosen.

5. A question on a survey reads: “Do you prefer the delicious taste of Brand X or the taste of Brand Y?” Is this a fair question?

6. Sixty adults with gum disease were asked the number of times per week they used to floss before their diagnosis. The (incomplete) results are shown in the following table.

<table>
<thead>
<tr>
<th># Flossing per Week</th>
<th>Frequency</th>
<th>Relative Frequency</th>
<th>Cumulative Relative Freq.</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>27</td>
<td>0.4500</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td>0.0500</td>
<td>0.9333</td>
</tr>
<tr>
<td>6</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>0.0167</td>
<td></td>
</tr>
</tbody>
</table>

a. Fill in the blanks in the table
b. What percent of adults flossed three times per week?
c. What percent flossed at most six times per week?