1. The starting annual salaries for a sample of 35 liberal arts graduates:

<table>
<thead>
<tr>
<th>Starting Salary ($thousands)</th>
<th>Frequency</th>
<th>Relative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>25 - (26)</td>
<td>3</td>
<td>0.086</td>
</tr>
<tr>
<td>26 - (27)</td>
<td>3</td>
<td>0.086</td>
</tr>
<tr>
<td>27 - (28)</td>
<td>5</td>
<td>0.143</td>
</tr>
<tr>
<td>28 - (29)</td>
<td>9</td>
<td>0.257</td>
</tr>
<tr>
<td>29 - (30)</td>
<td>9</td>
<td>0.257</td>
</tr>
<tr>
<td>30 - (31)</td>
<td>4</td>
<td>0.114</td>
</tr>
<tr>
<td>31 - (32)</td>
<td>1</td>
<td>0.029</td>
</tr>
<tr>
<td>32 - (33)</td>
<td>1</td>
<td>0.029</td>
</tr>
</tbody>
</table>

   a. Construct the cumulative frequency distribution.
   b. Construct the cumulative relative frequency distribution.
   c. Plot the ogive.
   d. Using your plot in part (c), find an approximate value for the median starting annual salary for liberal-arts graduates.

2. Do Exercise 2.49 on page 66 (64) in the textbook.

3. Do Exercise 2.62 (b) on page 70 (69) in the textbook.

4. Do Exercise 3.10 on page 99 (97) in the textbook.

5. Do Exercise 3.28 on page 105 (103) in the textbook. (Computations for part (b) do not have to be done in table form).
Exercises for Recitations (2/2-2/8)

1. The Motor Vehicle Manufacturers Association of the United States publishes information on the ages of cars and trucks currently in use in *Motor Vehicle Facts and Figures*. A sample of trucks was taken and the following dotplot was obtained by applying Minitab’s character-graph dotplot procedure to the data (age of trucks, in years):

   Dotplot: AGE
   
   +---------+---------+---------+-------AGE
   0.0       5.0      10.0      15.0
   :   . .:
   :   . .:
   :   . .:
   :   . .:
   :   . .:
   :   . .:
   +---------+---------+---------+-------AGE
   0.0       5.0      10.0      15.0

   a. How many trucks were sampled?
   b. How many of the trucks were between 5 and 8 years old, inclusive?
   c. What type of distributions do the data display?

2. The U.S. Bureau of the Census reports the percentage of adult population completing high school in each state in *Current Population Reports*. We applied Minitab’s stem-and-leaf procedure to obtain the following stem and leaf diagram for those data.

   Stem-and-leaf of HSCOMP
   N  = 50
   Leaf Unit = 1.0
   6 4
   6 566788
   7 012244
   7 55556666777778999999
   8 00001111222344
   8 57

   a. How many observations are there?
   b. How many lines per stem are used?
   c. Determine how many of the percentages are 80% or greater.
   d. Determine how many of the percentages are less than 69%.
   e. Identify the largest percentage.
   f. List the percentages that are in the 60's.

3. The amount of dollars a salesperson earned on six randomly selected days yielded the following data set:

   75  98  130  63  115  107

   a. Compute \( \bar{x} \)
   b. Compute \( \sum x^2 \), \( \sum (x - \bar{x}) \), and \( \sum (x - \bar{x})^2 \).
   c. Compute the standard deviation of the data.