Section 2.1-2.3 Self-Test

1) In the pictogram to the right, square B is 1 tall and 1 wide and represents $1,000. If square A represents $25,000, how big does square A need to be?

   a) 0.04 x 0.04  
   b) 0.2 x 0.2  
   c) 1 x 1  
   d) 5 x 5  
   e) 25 x 25

Questions 2-3 concern the following distribution of educational attainment among people age 30 to 34 in the United States. The data was coded in a spread-sheet so that educational level 1 = “Less than a high school diploma”, 2 = “High School Graduate”, 3 = “Some College”, 4 = “Bachelor’s Degree”, and 5 = “Advanced Degree”.

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.554 million</td>
<td>12.4</td>
</tr>
<tr>
<td>2</td>
<td>5.942 million</td>
<td>29.0</td>
</tr>
<tr>
<td>3</td>
<td>5.559 million</td>
<td>27.1</td>
</tr>
<tr>
<td>4</td>
<td>4.589 million</td>
<td>22.4</td>
</tr>
<tr>
<td>5</td>
<td>1.878 million</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>20.521 million</td>
<td>100.0</td>
</tr>
</tbody>
</table>

2) Column B is the:
   a) Frequency  
   b) Relative Frequency  
   c) Variable

3) The third bar in the bar graph to the right corresponds to an educational level of:
   a) 1  
   b) 2  
   c) 3  
   d) 4  
   e) 5  
   d) Skewed Right
Questions 4 and 5 refer to the histogram to the right:

4) This data set is best described as:
   a) Bimodal
   b) Symmetric
   c) Skewed Left

5) The mean of this data set is:
   a) Less than the median
   b) Approximately equal to the median
   c) Greater than the median
   d) Can’t tell from the picture

Questions 6-7 are based on the data set: 6 5 10 1 3 11

6) The mean is:
   a) 4.5
   b) 5.0
   c) 5.5
   d) 6.0
   e) 6.5

7) The median is:
   a) 4.5
   b) 5.0
   c) 5.5
   d) 6.0
   e) 6.5

8) The majority of a college football team weighs between 180 and 240 pounds. A small group of linemen weight between 260 and 310 pounds. If the opposing team’s student newspaper wants to make the typical team member sound smaller, they should use:
   a) The mean of the weights
   b) The median of the weights
   c) Both the mean and median will be approximately the same, so it shouldn’t make a difference.
9) A list of 20 exam scores range from 64 to 98. If a typo was made and the 64 was entered as a 4, then

   a) The mean would become larger and the median would become smaller
   b) The mean would become larger and the median would stay the same
   c) The mean would become smaller and the median would become larger
   d) The mean would become smaller and the median would stay the same
   e) The mean would stay the same and the median would become smaller