Disclaimer

You should use this practice exam to assess your speed and to improve your ability to correctly identify different problem types. The questions on this practice exam are taken from exams given in previous semesters, but they may not be representative of the questions that will appear on this semester's exam. You should also invest time re-reading the relevant parts of your textbook, reviewing your notes, and practicing homework problems.
1. A random sample of ten trees is selected from the population of trees in a particular forest. These trees are then tested to determine their ages. The ages of the ten trees (in years) are:

   45, 61, 62, 54, 52, 25, 43, 50, 44, 54

   a. Calculate the median for this data. (5 points)

   b. Calculate the sample mean for this data. (5 points)

   c. Calculate the midrange for this data. (4 points)

   d. Find the mode for this data. (If there is no mode then write no mode.) (4 points)

   e. Calculate the sample variance for this data. (8 points)
1. Continued from the previous page. (Data: 45, 61, 62, 54, 52, 25, 43, 50, 44, 54)

f. Calculate the sample standard deviation for this data.  
   (2 points)

g. Calculate the range for this data.  
   (4 points)

h. Complete the frequency table below.  
   (28 points)

<table>
<thead>
<tr>
<th>Class Limits</th>
<th>Class Boundaries</th>
<th>Class Midpoint</th>
<th>Tally</th>
<th>Frequency</th>
<th>Cumulative Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-33</td>
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<tr>
<td>34-42</td>
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</tr>
<tr>
<td>43-51</td>
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</tr>
<tr>
<td>52-60</td>
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<td></td>
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</tr>
<tr>
<td>61-69</td>
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<td></td>
</tr>
<tr>
<td>70-78</td>
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</tr>
</tbody>
</table>

i. Finish labeling the units on the horizontal axis, and plot the ogive for this data.  
   (12 points)
1. *Continued from the previous page.* (Data: 45, 61, 62, 54, 52, 25, 43, 50, 44, 54)

j. Finish labeling the units on the horizontal axis, and plot the histogram.

(10 points)

![Histogram Graph]

k. Finish labeling the units on the horizontal axis, and plot the frequency polygon.

(14 points)

![Frequency Polygon Graph]

l. Calculate the coefficient of variation for this sample.

(4 points)