Name: ____________________________
Teacher Name: ____________________________
Score: [ ]
ID Number: ____________________
Proficient: _______ yes   _______ no
Date: ____________________________

Testing Scores

The following twenty two test scores for your class are listed below:

73, 69, 58, 45, 39, 71, 55, 57, 43, 60, 68, 73, 49, 36, 59, 58, 45, 51, 56, 64, 44, 50

1. Make and label a stem-and-leaf plot to display this data.

2. Make and label a histogram to display the same data.

3. Describe the distribution of the data.

4. Find the five number summary for this data set. Make and label a box plot above the number line for this data.

   Minimum Value [________]
   Lower Quartile [________]
   Median [________]
   Upper Quartile [________]
   Maximum Value [________]
The list below shows the scores received on the pretest and on the chapter test.

<table>
<thead>
<tr>
<th>Pretest</th>
<th>34</th>
<th>56</th>
<th>30</th>
<th>32</th>
<th>79</th>
<th>88</th>
<th>25</th>
<th>63</th>
<th>78</th>
<th>88</th>
<th>65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter Test</td>
<td>56</td>
<td>71</td>
<td>53</td>
<td>30</td>
<td>65</td>
<td>92</td>
<td>63</td>
<td>57</td>
<td>85</td>
<td>90</td>
<td>65</td>
</tr>
</tbody>
</table>

5. Draw a scatterplot for the above data. Draw in the line for $y = x$.

6. How many students scored higher on the pretest than on the chapter test? Explain how you can tell this from the scatterplot above.
Skyscrapers

The heights, in meters, of the world’s tallest skyscrapers are given below:

<table>
<thead>
<tr>
<th>Name of Building</th>
<th>Height (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allied Bank Plaza, Houston</td>
<td>302</td>
</tr>
<tr>
<td>Bank of Montreal Tower, Toronto</td>
<td>285</td>
</tr>
<tr>
<td>Columbia Seafirst Center, Seattle</td>
<td>291</td>
</tr>
<tr>
<td>First Interstate World, Los Angeles</td>
<td>310</td>
</tr>
<tr>
<td>NCNB Plaza, Dallas</td>
<td>281</td>
</tr>
<tr>
<td>Scotia Plaza, Toronto</td>
<td>276</td>
</tr>
<tr>
<td>Texas Commerce Tower, Houston</td>
<td>305</td>
</tr>
<tr>
<td>Two Prudential Plaza, Chicago</td>
<td>288</td>
</tr>
<tr>
<td>Amoco, Chicago</td>
<td>346</td>
</tr>
<tr>
<td>Bank of China, Hong Kong</td>
<td>305</td>
</tr>
<tr>
<td>Citicorp, Chicago</td>
<td>279</td>
</tr>
<tr>
<td>Empire State Building, New York City</td>
<td>381</td>
</tr>
<tr>
<td>John Hancock Center, Chicago</td>
<td>280</td>
</tr>
<tr>
<td>Sears Tower, Chicago</td>
<td>443</td>
</tr>
<tr>
<td>World Trade Center, New York City</td>
<td>411</td>
</tr>
</tbody>
</table>

5. Make and label a stem-and-leaf plot to display this data.

6. Make and label a histogram to display the same data.

7. Describe the distribution of the data.

8. Find the five number summary for this data set. Make and label a box plot above the number line for this data.

   Minimum Value
   Lower Quartile
   Median
   Upper Quartile
   Maximum Value
The following are the first mark period grades in math and science for the eleven students in Mrs. Smith’s homeroom.

<table>
<thead>
<tr>
<th>Math Grade</th>
<th>95</th>
<th>51</th>
<th>49</th>
<th>27</th>
<th>42</th>
<th>52</th>
<th>67</th>
<th>48</th>
<th>46</th>
<th>69</th>
<th>82</th>
</tr>
</thead>
<tbody>
<tr>
<td>Science Grade</td>
<td>88</td>
<td>70</td>
<td>65</td>
<td>50</td>
<td>60</td>
<td>80</td>
<td>68</td>
<td>49</td>
<td>40</td>
<td>75</td>
<td>81</td>
</tr>
</tbody>
</table>

5. Draw a scatterplot for the above data. Draw in the line for y = x.

Math Grade

6. Did the eleven students in Mrs. Smith’s homeroom do better in math or science? Explain how you can tell this from the scatterplot.
Health Club

The following list of numbers reflect the number of hours the members of the Greenport Health Club spent working out during the month of March:

45, 10, 48, 25, 40, 42, 44, 23, 21, 13, 50, 17, 18, 19, 21, 35, 33, 25, 50, 13, 12, 46, 57, 41, 13, 59, 31, 48, 26, 15

9. Make and label a stem-and-leaf plot to display this data.

10. Make and label a histogram to display the same data.

11. Describe the distribution of the data.

12. Find the five number summary for this data set. Make and label a box plot above the number line for this data.

   Minimum Value _______
   Lower Quartile _______
   Median _______
   Upper Quartile _______
   Maximum Value _______
The list below shows the number of free throws Jeff and Marcus made during the last eleven games.

<table>
<thead>
<tr>
<th></th>
<th>Jeff</th>
<th>7</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>7</th>
<th>5</th>
<th>6</th>
<th>9</th>
<th>8</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marcus</td>
<td>6</td>
<td>6</td>
<td>9</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>0</td>
<td>4</td>
<td>5</td>
<td>9</td>
<td></td>
</tr>
</tbody>
</table>

5. Draw a scatterplot for the above data. Draw in the line for $y = x$.

6. How can you tell from the scatterplot the number of times that Jeff made more free throws than Marcus?
Age of U.S. Presidents At Their Death

The table below lists the presidents of the United States and the ages at which they died:

<table>
<thead>
<tr>
<th>President</th>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington</td>
<td>67</td>
</tr>
<tr>
<td>Adams</td>
<td>90</td>
</tr>
<tr>
<td>Jefferson</td>
<td>83</td>
</tr>
<tr>
<td>Madison</td>
<td>85</td>
</tr>
<tr>
<td>Monroe</td>
<td>73</td>
</tr>
<tr>
<td>Adams</td>
<td>80</td>
</tr>
<tr>
<td>Jackson</td>
<td>78</td>
</tr>
<tr>
<td>Van Buren</td>
<td>79</td>
</tr>
<tr>
<td>Harrison</td>
<td>68</td>
</tr>
<tr>
<td>Tyler</td>
<td>71</td>
</tr>
<tr>
<td>Polk</td>
<td>53</td>
</tr>
<tr>
<td>Taylor</td>
<td>65</td>
</tr>
<tr>
<td>Fillmore</td>
<td>74</td>
</tr>
<tr>
<td>Pierce</td>
<td>64</td>
</tr>
<tr>
<td>Buchanan</td>
<td>77</td>
</tr>
<tr>
<td>Grant</td>
<td>63</td>
</tr>
<tr>
<td>Hayes</td>
<td>70</td>
</tr>
<tr>
<td>Garfield</td>
<td>49</td>
</tr>
<tr>
<td>Arthur</td>
<td>57</td>
</tr>
<tr>
<td>Cleveland</td>
<td>71</td>
</tr>
<tr>
<td>Harrison</td>
<td>67</td>
</tr>
<tr>
<td>Lincoln</td>
<td>56</td>
</tr>
<tr>
<td>T. Roosevelt</td>
<td>60</td>
</tr>
<tr>
<td>Taft</td>
<td>72</td>
</tr>
<tr>
<td>Wilson</td>
<td>67</td>
</tr>
<tr>
<td>Taft</td>
<td>72</td>
</tr>
<tr>
<td>Kennedy</td>
<td>46</td>
</tr>
<tr>
<td>Johnson</td>
<td>64</td>
</tr>
<tr>
<td>Nixon</td>
<td>81</td>
</tr>
<tr>
<td>Johnson</td>
<td>64</td>
</tr>
<tr>
<td>Kennedy</td>
<td>46</td>
</tr>
<tr>
<td>Eisenhower</td>
<td>78</td>
</tr>
<tr>
<td>Hayes</td>
<td>67</td>
</tr>
<tr>
<td>T. Roosevelt</td>
<td>60</td>
</tr>
<tr>
<td>Arthur</td>
<td>57</td>
</tr>
<tr>
<td>Harding</td>
<td>57</td>
</tr>
<tr>
<td>Coolidge</td>
<td>60</td>
</tr>
<tr>
<td>Hoover</td>
<td>90</td>
</tr>
<tr>
<td>Wilson</td>
<td>67</td>
</tr>
<tr>
<td>McKinley</td>
<td>58</td>
</tr>
<tr>
<td>Truman</td>
<td>88</td>
</tr>
</tbody>
</table>

13. Make and label a stem-and-leaf plot to display this data.
14. Make and label a histogram to display the same data.
15. Describe the distribution of the data.
16. Find the five number summary for this data set. Make and label a box plot above the number line for this data.

Minimum Value ______
Lower Quartile ______
Median ______
Upper Quartile ______
Maximum Value ______
The table below compares the arm spans and the heights (in inches) of ten students.

<table>
<thead>
<tr>
<th>Height</th>
<th>63</th>
<th>61</th>
<th>57</th>
<th>59</th>
<th>72</th>
<th>74</th>
<th>63</th>
<th>65</th>
<th>67</th>
<th>63</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arm Span</td>
<td>61</td>
<td>55</td>
<td>56</td>
<td>59</td>
<td>74</td>
<td>74</td>
<td>61</td>
<td>62</td>
<td>63</td>
<td>60</td>
</tr>
</tbody>
</table>

5. Draw a scatterplot for the above data. Draw in the line for $y = x$.

6. How would you describe the students represented by the plotted points that are above the line $y = x$?
Bowling Team

Susan surveyed the members of the bowling teams in her league. She included a question asking the age of each member. The results are shown below.

<table>
<thead>
<tr>
<th>Ages of Bowling Team Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>24  23  29  36  32     29  43  27  28</td>
</tr>
<tr>
<td>33  34  56  51  38     21  47  55  51</td>
</tr>
<tr>
<td>30  47  41  55  39     42  42  43  55</td>
</tr>
</tbody>
</table>

17. Make and label a stem-and-leaf plot to display this data.

18. Make and label a histogram to display the same data.

19. Describe the distribution of the data.

20. Find the five number summary for this data set. Make and label a box plot above the number line for this data.

<table>
<thead>
<tr>
<th>Minimum Value</th>
<th>Lower Quartile</th>
<th>Median</th>
<th>Upper Quartile</th>
<th>Maximum Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

______  ______  ______  ______  ______
The table below shows the number of adult and children’s tickets sold during the week to the movie at the new budget theater.

<table>
<thead>
<tr>
<th>Tickets Sold</th>
<th>Sunday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult</td>
<td>85</td>
<td>65</td>
<td>54</td>
<td>70</td>
<td>45</td>
<td>110</td>
<td>150</td>
</tr>
<tr>
<td>Children</td>
<td>68</td>
<td>25</td>
<td>15</td>
<td>10</td>
<td>8</td>
<td>75</td>
<td>100</td>
</tr>
</tbody>
</table>

5. Draw a scatterplot for the above data. Draw in the line for $y = x$.

21. Can you tell from looking at the scatterplot who has the greater attendance, adults or children? Explain how you can tell this from the scatterplot.
Heights

Students in one ninth grade class collected data of heights (in cm) of girls in the class. They obtained the following list of numbers:


22. Make and label a stem-and-leaf plot to display this data.

23. Make and label a histogram to display the same data.

24. Describe the distribution of the data.

25. Find the five number summary for this data set. Make and label a box plot above the number line for this data.

<table>
<thead>
<tr>
<th>Minimum Value</th>
<th>Lower Quartile</th>
<th>Median</th>
<th>Upper Quartile</th>
<th>Maximum Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>_____</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
<td>_____</td>
</tr>
</tbody>
</table>
Ten people who have high blood pressure were willing to test a certain medication designed to lower blood pressure. The table below shows the blood pressure levels before and after the medication.

<table>
<thead>
<tr>
<th>Person</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td>Before</td>
<td>94</td>
<td>87</td>
<td>105</td>
<td>92</td>
<td>102</td>
<td>85</td>
<td>110</td>
<td>95</td>
<td>92</td>
<td>93</td>
</tr>
<tr>
<td>After</td>
<td>87</td>
<td>88</td>
<td>93</td>
<td>87</td>
<td>92</td>
<td>88</td>
<td>96</td>
<td>87</td>
<td>92</td>
<td>86</td>
</tr>
</tbody>
</table>

5. Draw a scatterplot for the above data. Draw in the line for \( y = x \).

6. What does it mean when one of your points is on the line \( y = x \)?