

NAME: _____

A.S.5: Construct a histogram, cumulative frequency histogram, and a box-and-whisker plot, given a set of data.

1. 060938ia, P.I. A.S.5

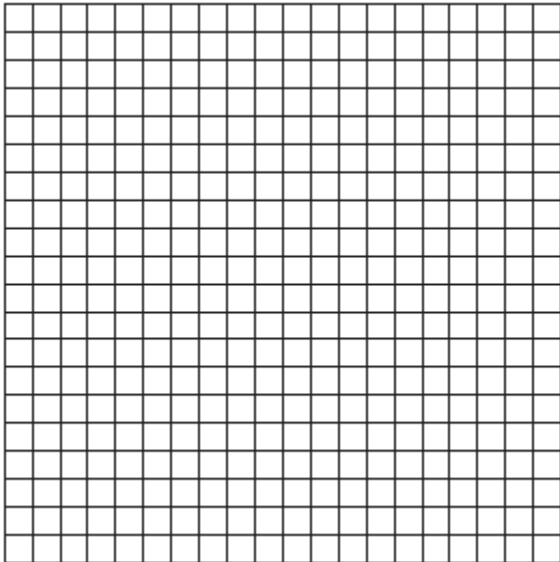
The Fahrenheit temperature readings on 30 April mornings in Stormville, New York, are shown below.

41°, 58°, 61°, 54°, 49°, 46°, 52°, 58°, 67°, 43°
47°, 60°, 52°, 58°, 48°, 44°, 59°, 66°, 62°, 55°
44°, 49°, 62°, 61°, 59°, 54°, 57°, 58°, 63°, 60°

Using the data, complete the frequency table below.

Interval	Tally	Frequency
40–44		
45–49		
50–54		
55–59		
60–64		
65–69		

On the grid below, construct and label a frequency histogram based on the table.



2. 080838ia, P.I. A.S.5

Twenty students were surveyed about the number of days they played outside in one week. The results of this survey are shown below.

{6,5,4,5,0,7,1,5,4,4,3,2,2,3,2,4,3,4,0,7}

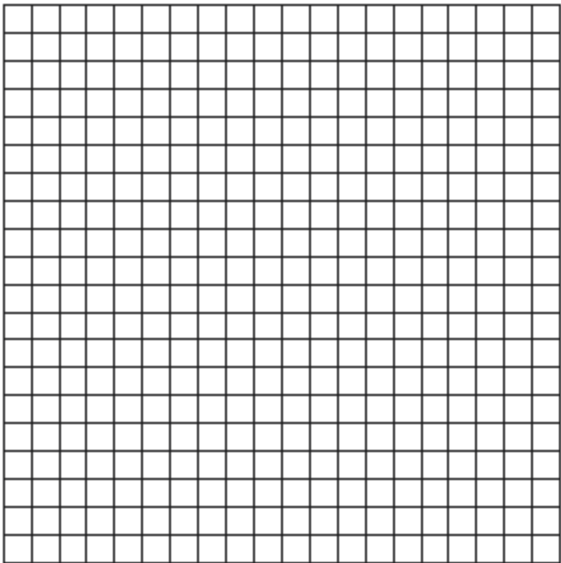
Complete the frequency table and cumulative frequency table below for these data. Create a cumulative frequency histogram based upon the table you made.

Number of Days Outside

Interval	Tally	Frequency
0–1		
2–3		
4–5		
6–7		

Number of Days Outside

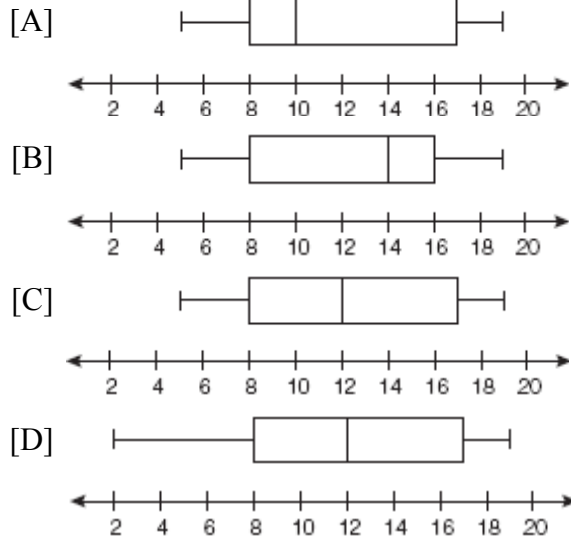
Interval	Cumulative Frequency
0–1	
0–3	
0–5	
0–7	



NAME: _____

3. fall0709ia, P.I. A.S.5

The data set 5, 6, 7, 8, 9, 9, 9, 10, 12, 14, 17, 17, 18, 19, 19 represents the number of hours spent on the Internet in a week by students in a mathematics class. Which box-and-whisker plot represents the data?

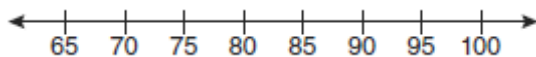


4. 080939ia, P.I. A.S.5

The test scores from Mrs. Gray's math class are shown below.

72, 73, 66, 71, 82, 85, 95, 85, 86, 89, 91, 92

Construct a box-and-whisker plot to display these data.



A.S.5: Construct a histogram, cumulative frequency histogram, and a box-and-whisker plot, given a set of data.

[4] The frequency table is completed correctly, and a correct frequency histogram is drawn and labeled.

[3] The frequency table is completed correctly, but one graphing or labeling error is made in the frequency histogram.

or [3] The frequency table is completed incorrectly, but an appropriate frequency histogram is drawn and labeled.

[2] The frequency table is completed correctly, but two or more graphing or labeling errors are made in the frequency histogram.

or [2] The frequency table is completed correctly, but one conceptual error is made, such as drawing a cumulative frequency histogram, bar graph, or broken-line graph.

[1] Appropriate work is shown, but one conceptual error and one graphing or labeling error are made in the frequency histogram.

or [1] The frequency table is completed incorrectly, and two or more graphing or labeling errors are made in the frequency histogram.

or [1] The frequency table is completed correctly, but no further correct work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[1] incorrect procedure.

[4] The tables are completed correctly, and a correct cumulative frequency histogram is drawn and labeled.

[3] The tables are completed correctly, but one graphing error is made on the cumulative frequency histogram.

or [3] The tables are completed with one error, but an appropriate cumulative frequency histogram is drawn and labeled.

or [3] The tables are completed correctly and a correct cumulative frequency histogram is drawn, but the histogram is not labeled or is labeled incorrectly.

[2] The tables are completed with two errors, but an appropriate cumulative frequency histogram is drawn and labeled.

or [2] Appropriate work is shown, but one conceptual error is made, such as drawing a frequency histogram or a cumulative frequency bar graph.

or [2] The tables are completed correctly, but no further correct work is shown.

[1] Appropriate work is shown, but one conceptual error and one graphing or labeling error are made on the cumulative frequency histogram.

or [1] The frequency table is completed correctly, but no further correct work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[2] incorrect procedure.

[3] A

[4] A box-and-whisker plot is constructed correctly, where the minimum = 66, the first quartile = 72.5, the median = 85, the third quartile = 90, and the maximum = 95.

[3] A box-and-whisker plot is constructed, but one computational or graphing error is made.

[2] A box-and-whisker plot is constructed, but two or more computational or graphing errors are made.

or [2] A box-and-whisker plot is constructed, but one conceptual error is made.

[1] A box-and-whisker plot is constructed, but one conceptual error and one computational or graphing error are made.

or [1] A box-and-whisker plot is constructed, but only two of the statistical measures, the first quartile, the median, or the third quartile are found.

or [1] Minimum = 66, first quartile = 72.5, median = 85, third quartile = 90, and maximum = 95 are found, but no further correct work is shown.

[0] A zero response is completely incorrect, irrelevant, or incoherent or is a correct response that was obtained by an obviously

[4] incorrect procedure.
