Name _____

Lesson 2: Histograms

Warm Up

Robin collected data on the number of hours she watched television on Sunday through Thursday nights for a period of 3 weeks. The data are shown in the table below.

	Sun	Mon	Tues	Wed	Thurs
Week 1	4	3	3.5	2	2
Week 2	4.5	5	2.5	3	1.5
Week 3	4	3	1	1.5	2.5

Using an appropriate scale on the number line below, construct a box plot for the 15 values.

HISTOGRAMS

Histograms can be used to represent summary data by grouping the data based on intervals. The data in each interval is represented by a bar.

Data can be organized in a histogram. A **histogram** is another word for a _____ graph.

Example 1: The 2006-2007 High School Varsity Boy's basketball team had an excellent season, compiling a record of 15-5 (15 wins and 5 losses). The total points scored by the team for each of the 20 games are listed below in order in which the games were played:

76, 55, 76, 64, 46, 91, 65, 46, 45, 53, 56, 53, 57, 67, 62, 64, 67, 52, 58, 62

a.) Complete the frequency table below:

POINTS SCORED	TALLY	FREQUENCY
40 - 49		
50 - 59		
60 - 69		
70 - 79		
80 - 89		
90 - 99		

b.) On the graph grid provided, create a histogram using the frequency table from above.
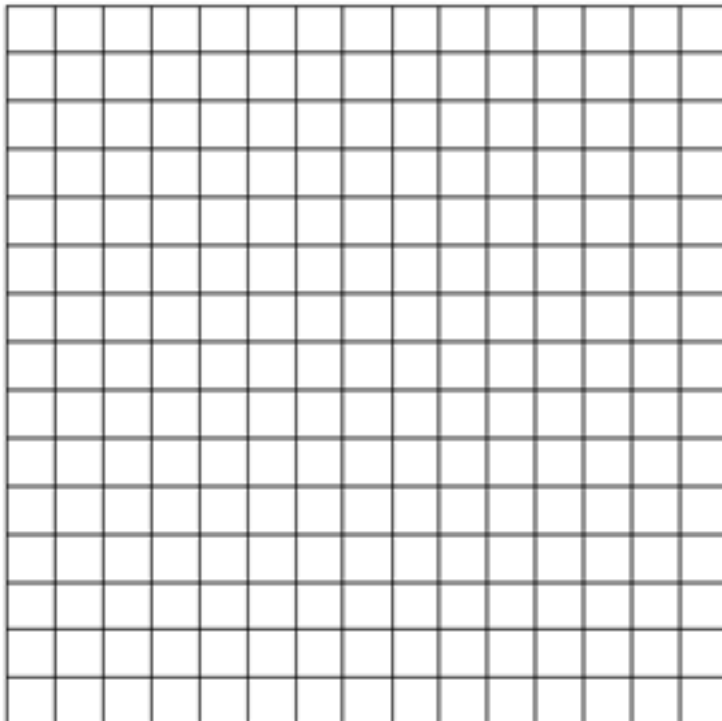
Note: There should be no spaces between the bars on a frequency histogram because there are no gaps between intervals in the frequency table.
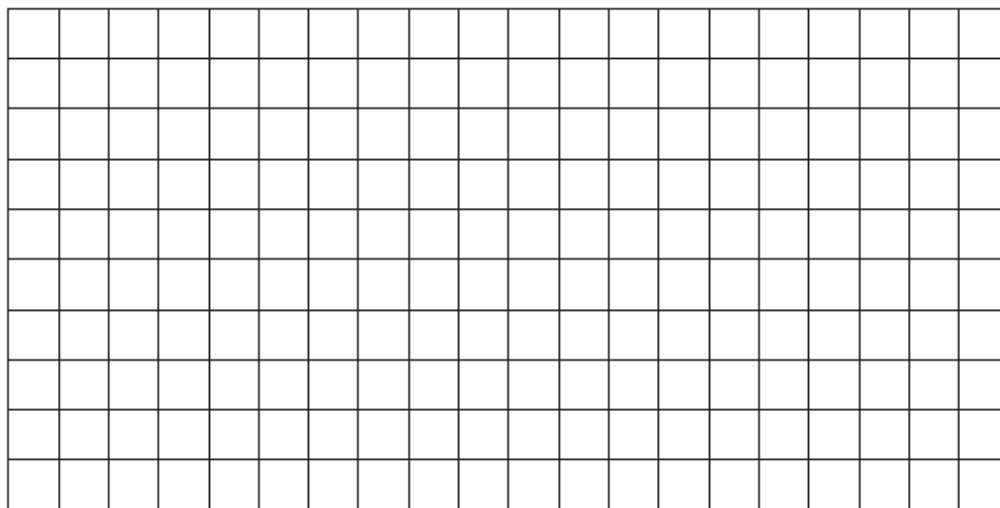
Example 2: Jackson is the star of the school's basketball team. The number of points he in his last 18 games are as follows:

23, 32, 36, 34, 29, 29, 28, 23, 25, 33, 24, 25, 35, 30, 32, 34, 27, 23

a. Complete the frequency table.

Interval	Tally	Frequency
35 - 37		
32 – 34		
29 – 31		
26 – 28		
23 - 25		

b.   Construct a frequency histogram on the grid below.

Name _____ Date _____

Lesson 2: Histograms **CW/HW**

1.) A different forty people were also attending an event. The ages of the people are as follows:

$$6, 13, 24, 27, 28, 32, 32, 34, 38, 42, 42, 43, 48, 49, 49, 49, 51, 52, 52, 53,$$

$$53, 53, 54, 55, 56, 57, 57, 60, 61, 61, 62, 66, 66, 66, 68, 70, 72, 78, 83, 97.$$

Create a histogram of the ages using the provided axes.

Histogram of Ages for Event 2

L.O.: I can represent and interpret the summary data in histograms.　Lesson 2　M2

ALGEBRA I

2.) Casey talked to everyone in his apartment building to find out how many hours of television each person watched every day. The results are shown in the histogram below. Using the histogram, determine the total number of people in Casey's building.

Hours of Television Watched Daily
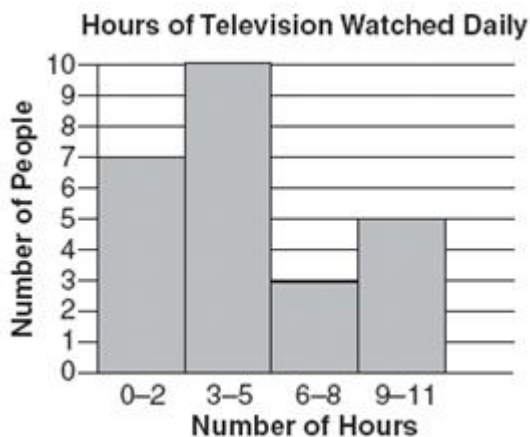
3.) The accompanying frequency table shows data collected by the weather bureau for the daily high temperatures in January in Buffalo.

Interval (temperature)	Frequency
30–39	13
20–29	6
10–19	5
0–9	7

Which interval contains the median temperature?

a.) 0-9   b.) 10-19   c.) 20-29   d.) 30-39

4.) The test scores for 10 students in Ms. Sampson's homeroom were 61, 67, 81, 83, 87, 88, 89, 90, 98, and 100. Which frequency table is accurate for this set of data?

Interval	Frequency
61–70	2
71–80	2
81–90	7
91–100	10

Interval	Frequency
61–70	2
71–80	0
81–90	6
91–100	2

Interval	Frequency
61–70	2
71–80	0
81–90	8
91–100	10

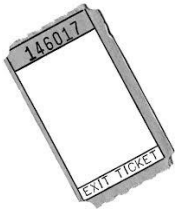| Interval	Frequency
61–70	2
71–80	2
81–90	8
91–100	10

a.)   b.)   c.)   d.)

Name _____

Lesson 2: Histograms

Exit Ticket

Twenty-five people were attending an event. The ages of the people are as follows:

$$3, 3, 4, 4, 4, 4, 5, 6, 6, 6, 6, 6, 6, 6, 7, 7, 7, 7, 7, 7, 16, 17, 22, 22, 25.$$

a.   Create a histogram of the ages using the provided axes.

Histogram for Event 1