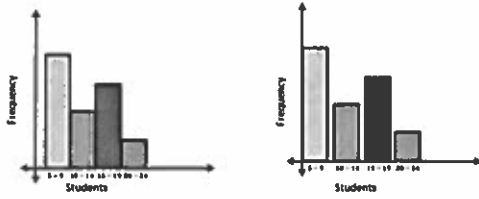


Warm-Up!

- Which of the following graphs represents a correct histogram?



Unit 4 Test Review

Woop!

Mean, Median, Mode, Range, Outlier

- Give the set of data find all of the things listed above
3, 2, 5, 3, 7, 1, 5, 7, 25, 2, 5
- Repeat the same process but without the outlier.
Compare the Mean, Median, Mode and Range

Mean, Median, Mode, Range, Outlier

- Give the set of data find all of the things listed above
90, 87, 76, 89, 93, 88, 87, 75, 76, 34, 90, 91
- Repeat the same process but without the outlier.
Compare the Mean, Median, Mode and Range

Standard Deviation

- Given the following table of data which represents the test scores for a randomly selected college midterm, determine the outlier and describe how it affects the Standard deviation of the data.

78	67	74	32	87	90
92	85	88	76	90	93
84	88	85	98	79	84

Standard Deviation

- Given the following table of data which represents the height in inches of plants in a garden, determine the outlier and describe how it affects the Standard deviation of the data.

5	7	10	32	15	7
9	15	8	9	12	5
4	3	11	6	2	6

Frequency Table

- Mr. Famularo Went back to his college, Kutztown University, and surveyed 60 random students. He asked every kid what their Major was, and the results are outlined in the two-way frequency table below.

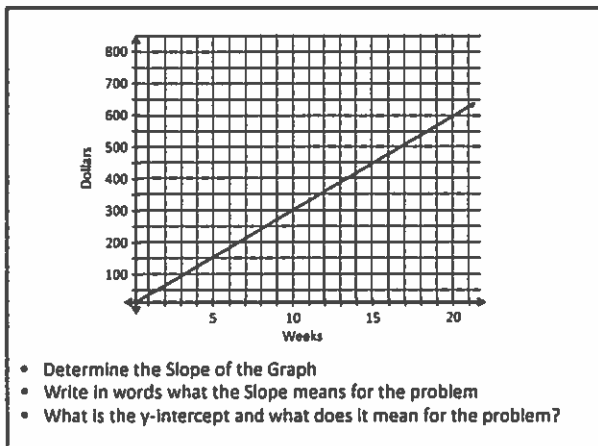
	Education	Liberal Arts	Business	Undeclared
Boys	2	1	11	17
Girls	7	10	2	10

- Out of the boys who were surveyed what fraction of them had a major already chosen?
- Out of the girls who were surveyed what fraction of them did not have a chosen major?

Frequency Table

- Mr. Bishop decided to go back to college too. He also surveyed 60 random students. He asked every kid what their Major was, but it was raining and the only thing left are the notes Mr. Bishop took. His notes are as follows: The total number of Boys surveyed was 34. 6 boys are education majors but there are a total of 20. Liberal arts has 10 girls majoring. 18 Boys are the only ones who are studying business. There a total of 12 undeclared students.

	Education	Liberal Arts	Business	Undeclared	Totals
Boys					
Girls					
Totals					



- Below is a table that shows the relationship between acres of land and the square footage of a house.
 - Find the equation for the line of best fit.
 - Determine the Correlation Coefficient, round to the hundredth place.
 - Use the above information to approximate the square footage of a house on 2 acres of land
 - Determine the Standard deviation for the square footages of the houses.

Acres	Square Footage
20	1,000
23	1,245
25	1,307
30	1,456
33	1,820
42	2,103
45	2,160
50	2,231
55	2,345
65	2,409
80	2,850
1.00	2.850

Create a Box and Whisker Plot

90, 87, 76, 89, 93, 88, 87, 75, 76, 34, 90, 91, 78, 90, 93, 87

Create a Dot Plot

34, 12, 15, 32, 45, 32, 37, 39, 12, 24, 28, 39, 45, 32, 43

Create a Histogram

90, 87, 76, 89, 93, 88, 87, 75, 76, 34, 90, 91, 78, 90, 93,
87, 34, 12, 15, 32, 45, 32, 37, 39, 12, 24, 28, 39, 45, 32, 43

Study!

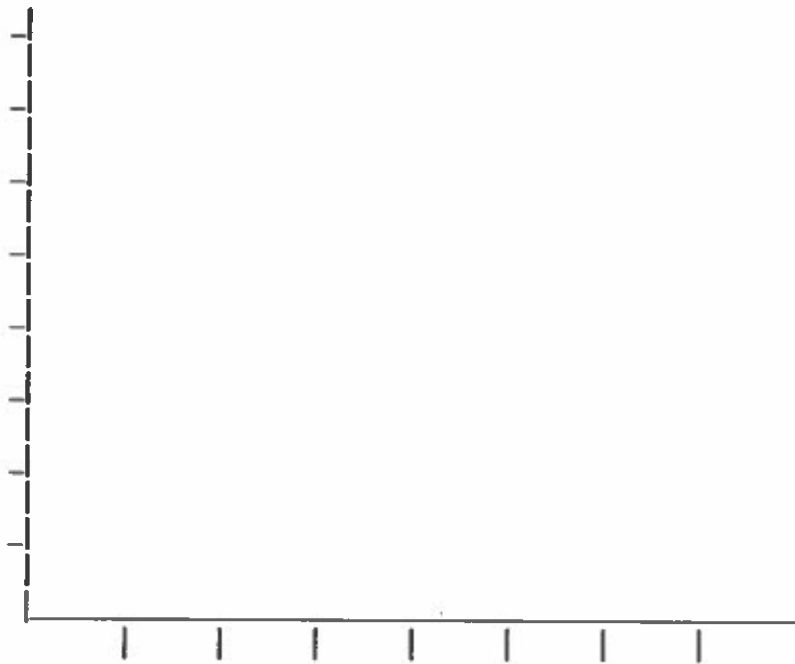
Algebra I – CC
Unit 4 – Review

Name: _____

1) The following represents miles ran per week by the NDHS and CSD cross country teams.

10, 4, 12, 20, 8, 10, 11, 12, 6, 4, 6, 15, 17, 8, 9

Create a histogram for the data above. Start with the lowest number and use intervals of 6 for your x-axis.



2) Mr. Blisard's statistics class collected data to determine the average number of text messages students send per day which is listed below.

325 68 125 75 98 220 215 85 12 185 100

Is there an outlier in the data set? If so, what is it?

3) Using the data from # 2 above, calculate the mean, median and mode for the data with and without the outlier. Explain how each measure of central tendency is changed when the outlier is included versus not including the outlier.

_____	Mean	_____	Mean
_____	Mode	_____	Mode
_____	Median	_____	Median

4) The growing season is defined as the average number of days between the last frost in the spring and the first frost of the fall. The table below shows the average growing season for nine major U.S. cities.

AVERAGE GROWING SEASON (IN DAYS)

279	198	165
271	193	156
262	192	156

If the circled number 156 is changed to 256, how would the mean, median, and mode of this data change?

- A increase mean, median, and mode
- B decrease mean, median, and mode
- C increase mean, median, eliminate mode
- D increase mean and mode, decrease median

5) A businesswoman calculates that the median cost of her five business trips last month was \$600. Which of these statements is correct?

- A She spent a total of \$3,000 on business trips last month.
- B She spent \$600 on most of the business trips last month.
- C She spent \$600 or more on at least half of the business trips last month.
- D She spent \$600 more on her most expensive business trip than she did on her least expensive trip

6) Rayshawn surveyed all of the after school students and asked the question, "What is your favorite after school sport to attend?" He recorded the data in a two-way frequency table.

Favorite Sport

	Soccer	Basketball	Wrestling	Softball	Baseball
Seniors	25	45	15	15	20
Underclassmen	45	70	25	30	30

a) Out of the underclassmen that were surveyed, what fraction of them chose softball or baseball as their favorite sport?

b) Out of all the students, what fraction of them chose soccer or basketball?

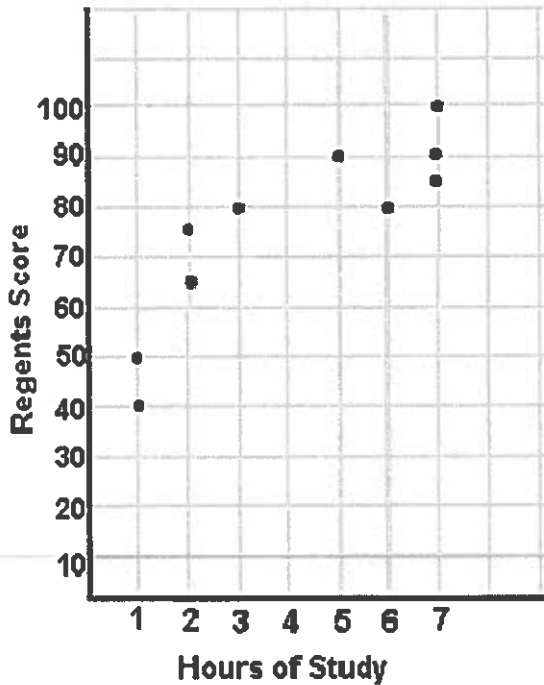
7) The graph below shows the number of railroad employees since the year of 1989.



a) Find the slope of the line.

b) What does the slope represent in the context of the problem?

8) The score below shows the relationship between the hours of study and scores on the Regents exam.



a) Predict the score if a student studies 0 hours.

b) Draw the line of best fit.

c) Based on your line of best fit, what is the y-intercept and what does it mean in the context of the problem?

9) The table below shows the number of medals won by 24 countries during the 1998 Winter Olympic Games.

1998 Final Medal Standings

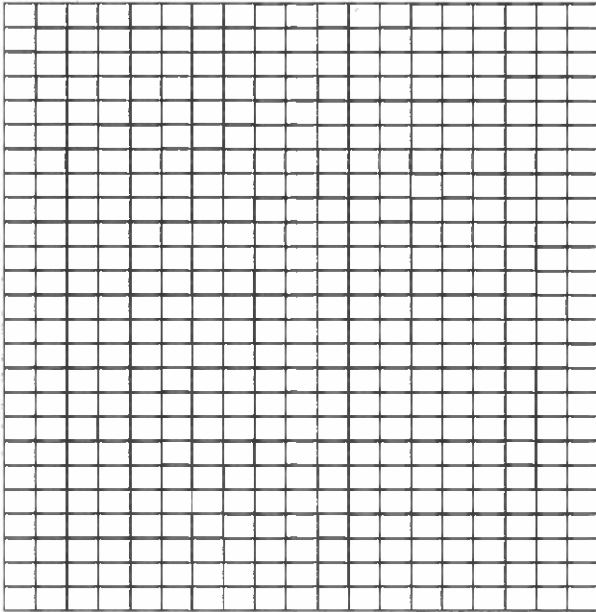
Country	Medals Won
Germany	29
Norway	25
Russia	18
Austria	17
Canada	15
U.S.	13
Finland	12
Netherlands	11
Japan	10
Italy	10
France	8
China	8
Switzerland	7

Use the data to create a box and whisker plot



10) Graph the data from the table below and create the line of best fit. Using the line of best fit, predict the shoe size of a woman who is 72 inches tall.

Height	60	65	63	66	68	69	70
Shoe size	5.5	6	6	7	7.5	8	7.5



11) The table below shows the relationship between length of time jogging and calories burned.

JOGGING DATA

Length of Time Jogging (in minutes)	Calories Burned
0	0
10	98
20	196
30	295
40	393
50	490

- a) Find the equation for the line of best fit.
- b) Find the correlation coefficient.
- c) What does the correlation coefficient tell you about the relationship?

12) The following data represents the number of runs scored by the NDHS baseball team in 2011.

1, 5, 8, 12, 6, 2, 2, 7, 5, 11, 4, 1, 3

Create a box and whisker plot for the data above.



13) The table below shows the percent of students who complete homework on any given day at CSDHS.

85	80	60	95	90	65	70	75
50	80	85	80	90	80	70	70

a) Create a dot plot based on the percentages above.



b) Find the mode of the data.

c) The principal added in two more days of data. The percentages for these two days are 70 and 75. How does this change the mode of the data?