

Name: _____ Hour: _____

Standard: F-BF.3 Identify the effect on the graph of replacing $f(x)$ by $f(x) + k$, $k f(x)$, $f(kx)$, and $f(x+k)$, for specific values of k ; find the value of k given the graphs.

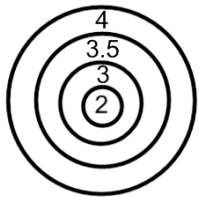
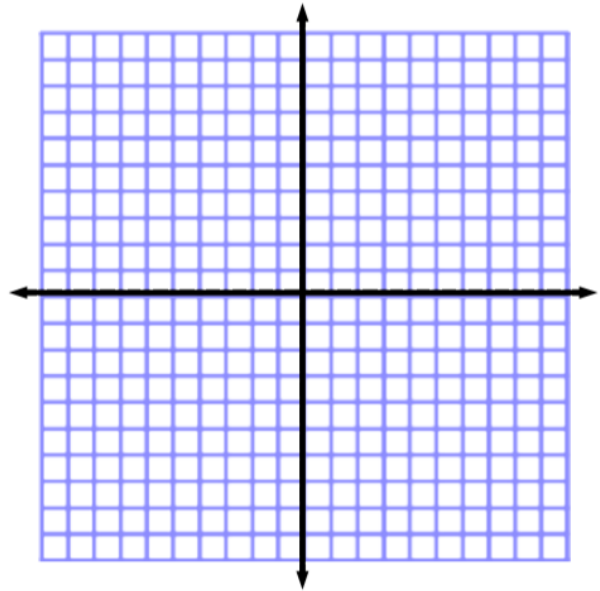
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Directions: Graph the functions, then answer the following question.

1.) Graph $y = |x|$. Label the graph.

2.) Graph $y = |x + 2| - 4$. Label the graph.

3.) Explain how you can graph $y = |x + 2| - 4$ using translations.



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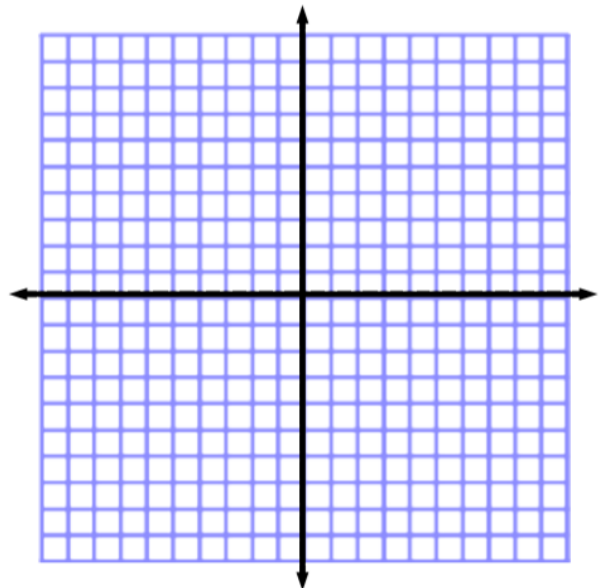
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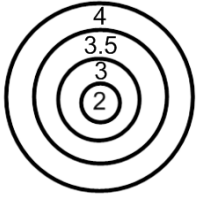
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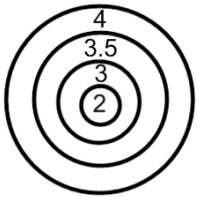


Name: _____ Hour: _____
Standard: S-ID.1 Represent data with plots on the real number line (dot plots, histograms, and box plots).

/4

Directions: Create a plot (dot plot, histogram, or box plot) to represent the data.

Test scores in Mrs. Dickinson's Algebra class: 93, 76, 65, 91, 78, 83, 98, 70, 96, 91, 100, 83, 91, 96, 89, 83, 96, 80, 85, 80

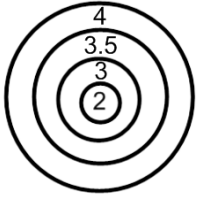


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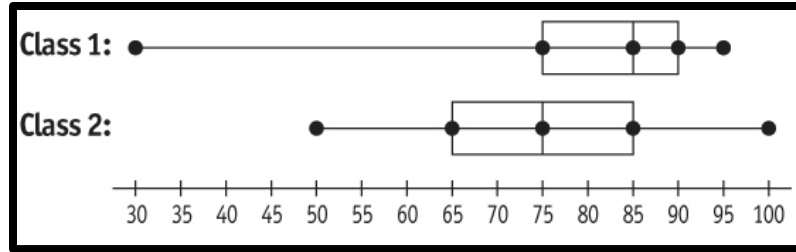
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Name: _____ Hour: _____

Standard: S-ID.2 Use statistics appropriate to the shape of the data distribution to compare center and spread of two or more different data sets.

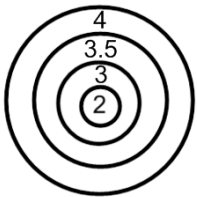
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1.) Compare the range and medians of the scores from the two classes.

2.) Which class performed better on the exam? Why?

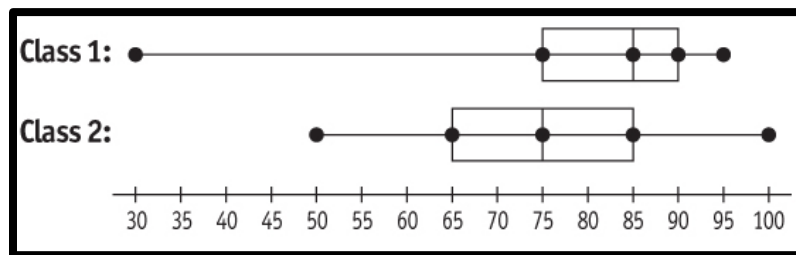
3.) Identify any outliers in the data set above.



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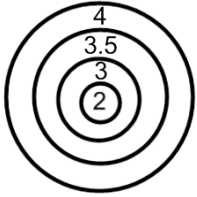
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1.) Compare the range and medians of the scores from the two classes.

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Name: _____ Hour: _____

Standard: S-ID.3 Interpret differences in shape, center, and spread in the context of the data sets, accounting for possible effects of extreme data points.

Data Set 1: 3, 4, 5, 7, 1, 10, 8, 9, 9, 6, 5, 5
 Data Set 2: 3, 4, 5, 7, 31, 10, 8, 9, 9, 6, 5, 5

/4

Using the 2 data sets, describe what happens to then...

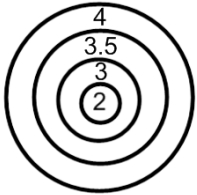
Mean:

Median:

Mode:

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Make a generalized statement about what outliers do to the measures of central tendency.



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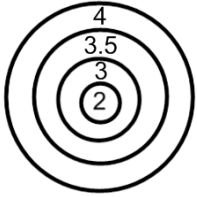
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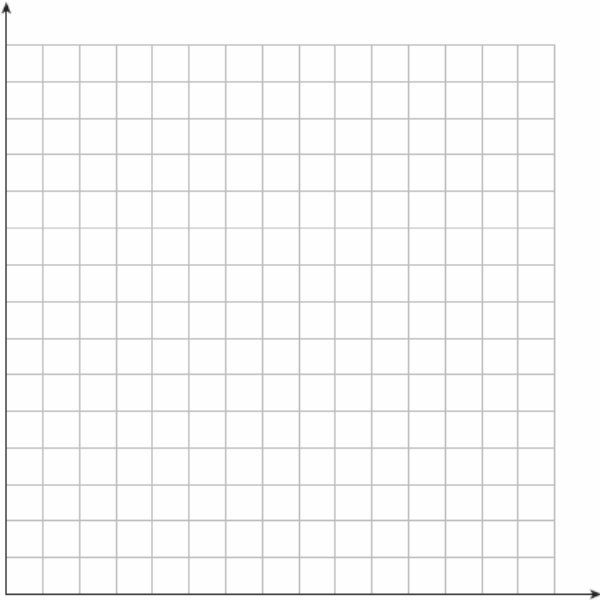


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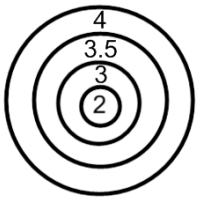
Standard: S-ID.6a Fit a function to the data use functions fitted to data to solve problems in the context of the data.

/4

Directions: Use the data provided to create a scatterplot. Make sure to label everything.



	Student									
	#1	#2	#3	#4	#5	#6	#7	#8	#9	#10
Hours of Sleep	9	5	6	6	8	9	10	7	6	8
Math Test Score	93	70	77	81	88	91	76	78	68	100

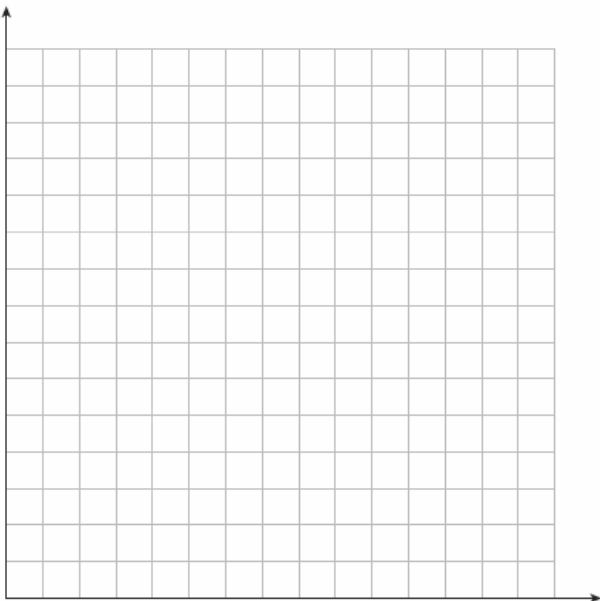


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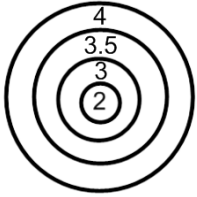
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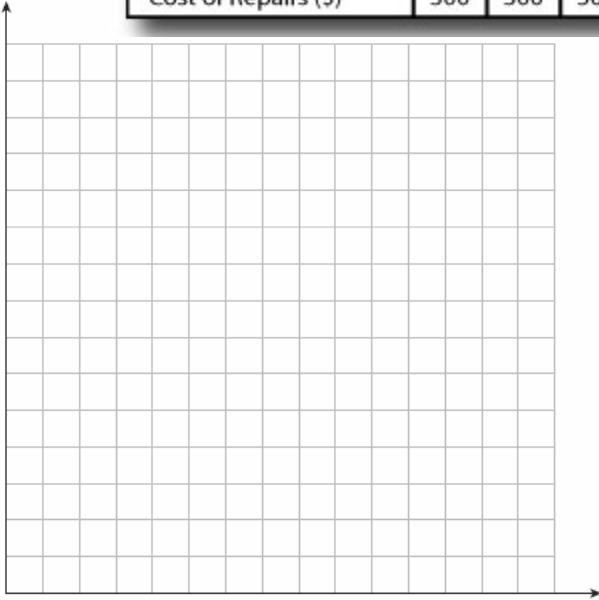


Name: _____ Hour: _____
Standard: S-ID-6c Fit a linear function for a scatter plot that suggests a linear association.

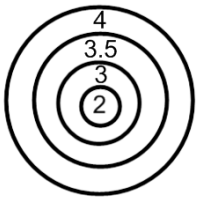
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Directions: Use the table below to create a scatter plot. Then, create a line of best fit and find the equation for that line.

Oil Changes Per Year	3	5	2	3	1	4	6	4	3	2	0	10	7
Cost of Repairs (\$)	300	300	500	400	700	400	100	250	450	650	600	0	150



Line of best fit equation: _____

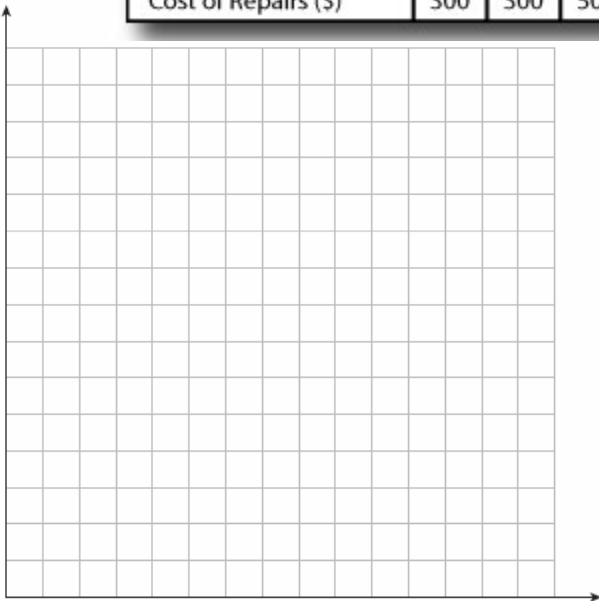


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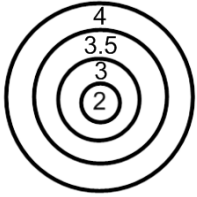
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Standard: S-ID.7 Interpret the slope and the intercept of a linear model in the context of the data.

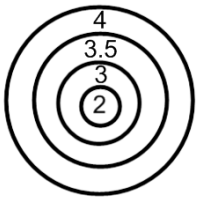
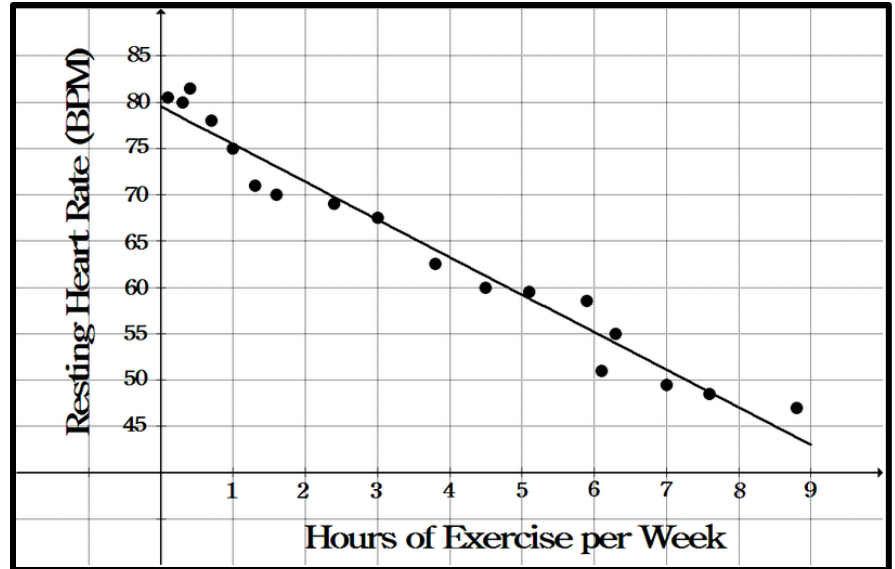
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Directions: Use the scatter plot with the line of best fit to answer the following questions.

1.) What is the equation of the line of best fit?

2.) What does the slope mean in the context of the situation?

3.) What does the y-intercept mean in the context of the situation?



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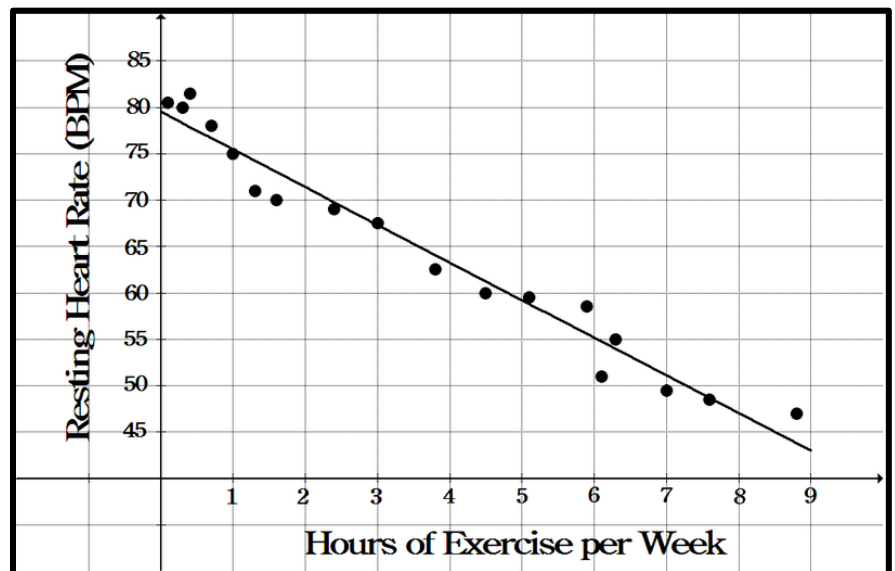
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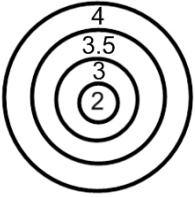
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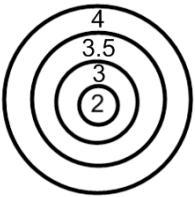
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Standard: S-ID.8 Compute and interpret the correlation coefficient of a linear fit.

Standard: S-ID.9 Distinguish between correlation and causation.

/4

- 1.) The correlation coefficient of a given data set is 0.2. List three specific things this tells you about the data.
- 2.) The correlation coefficient of a given data set is 0.99. List three specific things this tells you about the data.
- 3.) Use the cartoon provided, does correlation imply causation for the scenario?



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