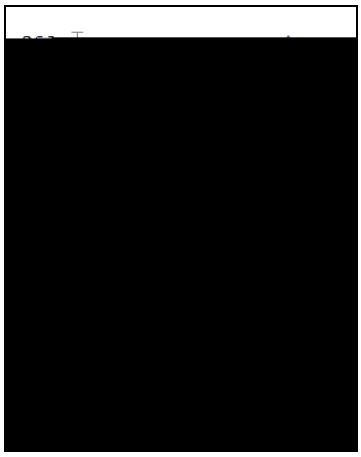
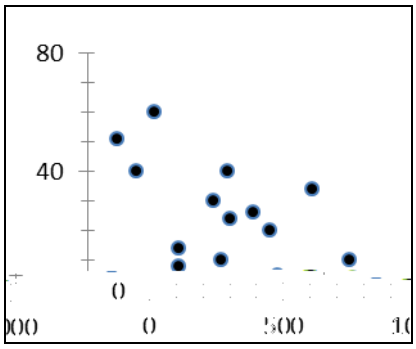
Grade Level/Course:
Lesson/Unit Plan Name:
Rationale/Lesson Abstract:
Timeframe:

Common Core Standard(s):

r0 mrroltm(

Example 1: Look at the two scatterplots and answer the questions below.





r 0.84

r 0.51

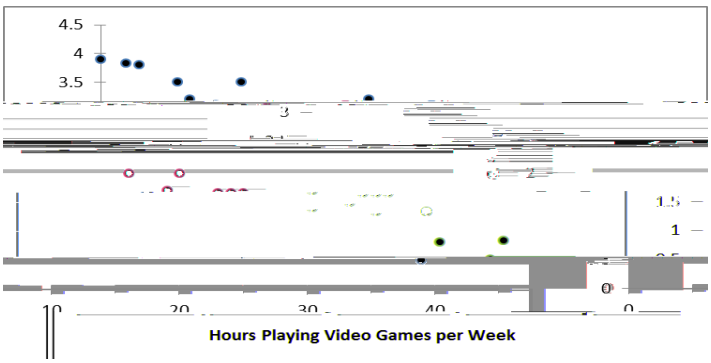
<u>You Try:</u>

r 0.95

r 0.95

Example 2: Fit a linear model for the scatterplot and write the equation of the linear model.

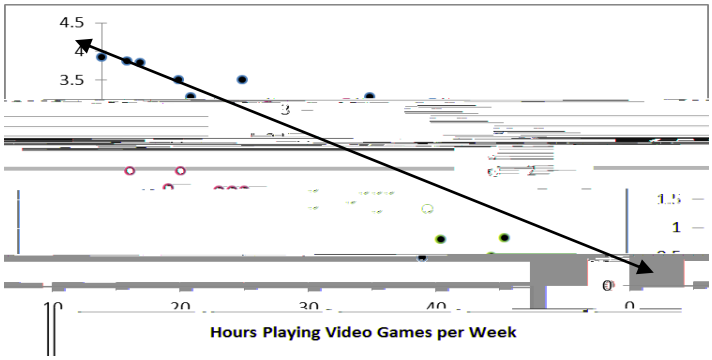
You Try: The following scatterplot displays the hours playing video games per week and the G.P.A. of 33 students. Answer the following questions regarding the scatterplot.



$r \quad 0.95$

$30,1.3$

$2,3.8$



$$m \quad \frac{y_2 \quad y_1}{x_2 \quad x_1}$$

$$m \quad \frac{3.8 \quad 1.3}{2 \quad 30}$$

$$m \quad \frac{2.5}{28}$$

$$m \quad 0.089$$

$0,4 \qquad b \quad 4$

Equation of the Linear Model: $y \quad 0.089x \quad 4$

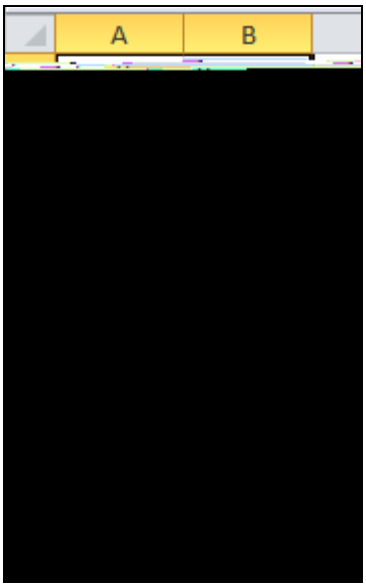
$y \quad 0.089x \quad 4$

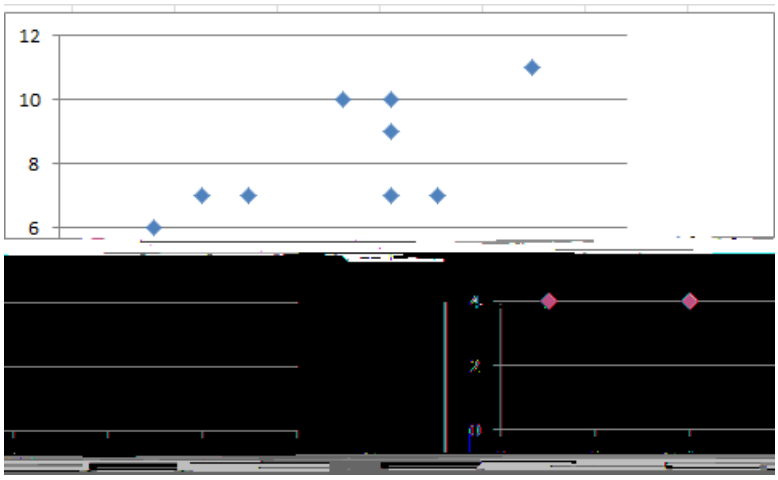
$y \quad 0.089 \ 10 \quad 4$

$y \quad 3.11$

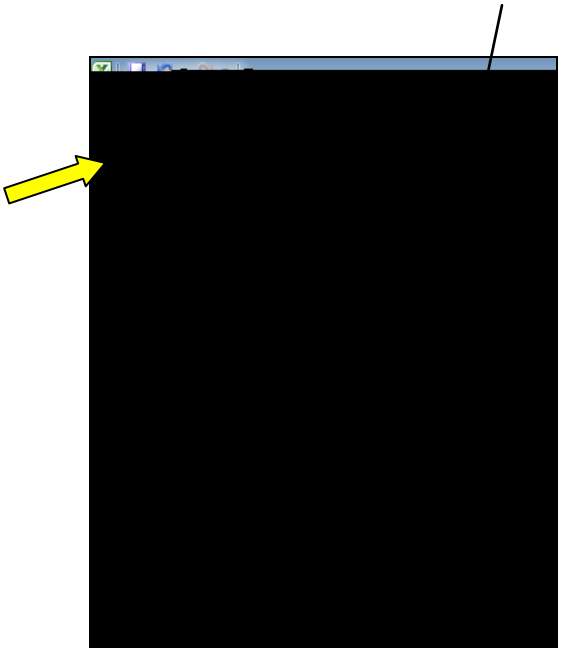
Based on this linear model, we would expect the student's G.P.A. to be 3.11

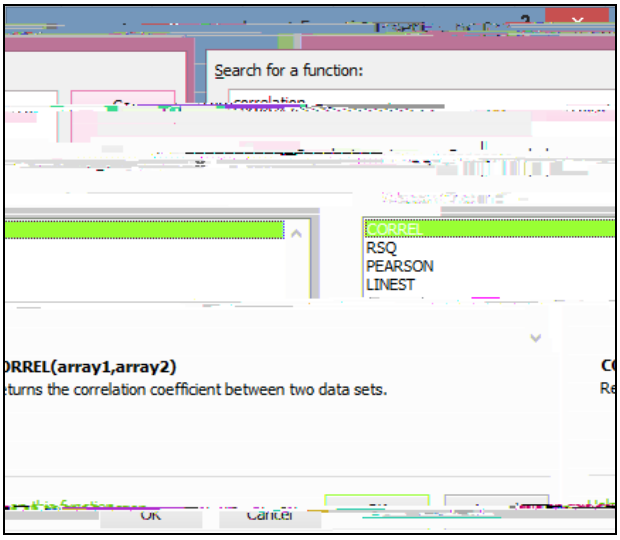
	A	B
1	3	7
2	2	6
3	10	11
4	6	10
5	8	7
6	7	7
7	7	9
8	7	10
9	4	4
10	4	7
11	1	4
12	1	4
13		

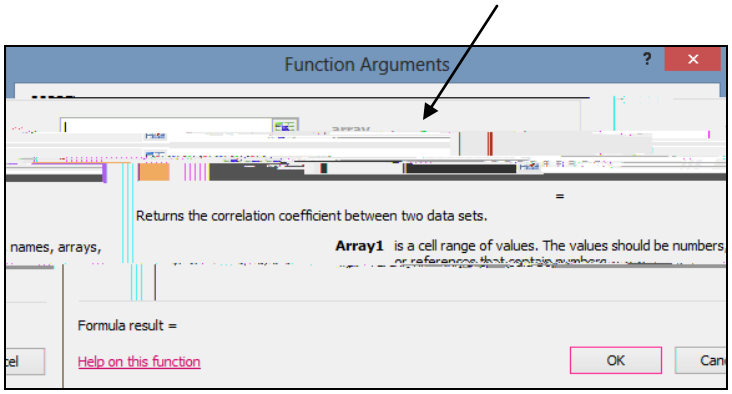


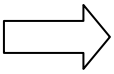

12
10
8
6

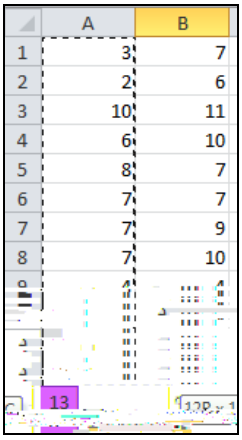
	A	B
1	3	7
2	2	6
3	10	11
4	6	10
5	8	7
6	7	7
7	7	9
8	7	10
9	4	4
10	4	7
11	1	4
12	1	4
13		

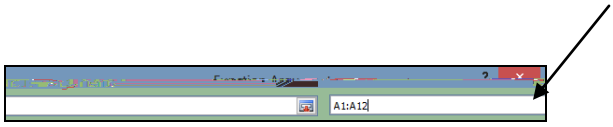


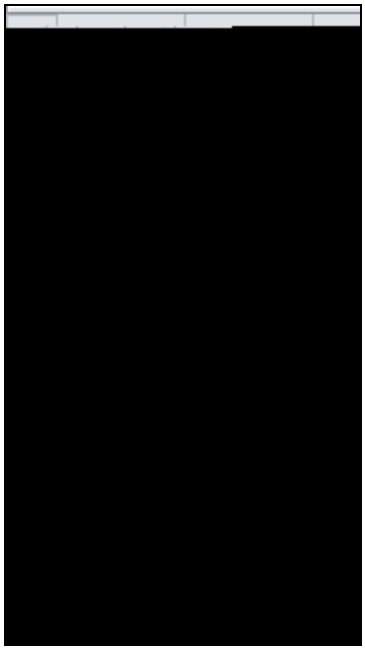


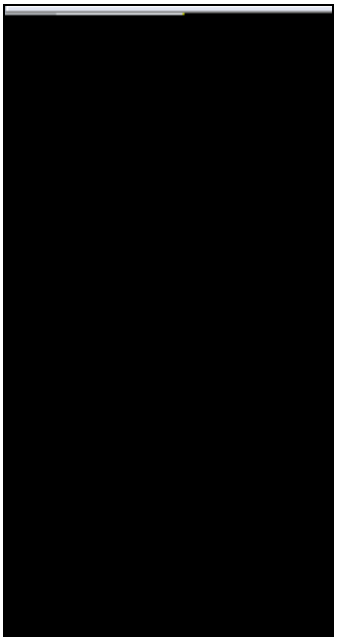

Function Arguments
Returns the correlation coefficient between two data sets.
names, arrays,
Array1 is a cell range of values. The values should be numbers
Formula result =
Help on this function
OK

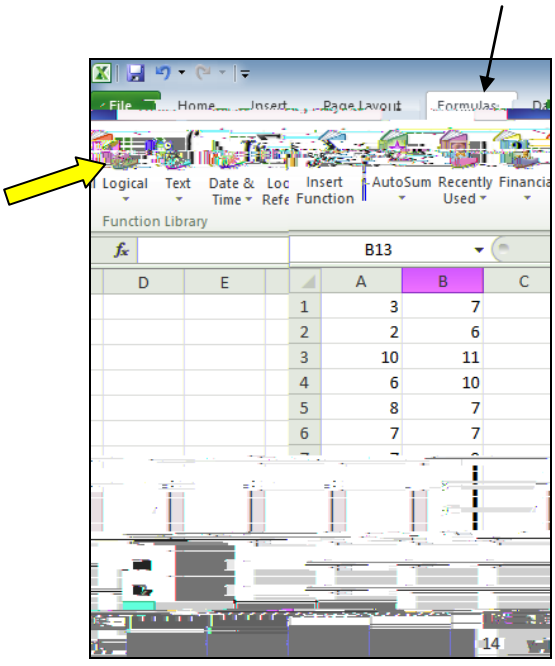


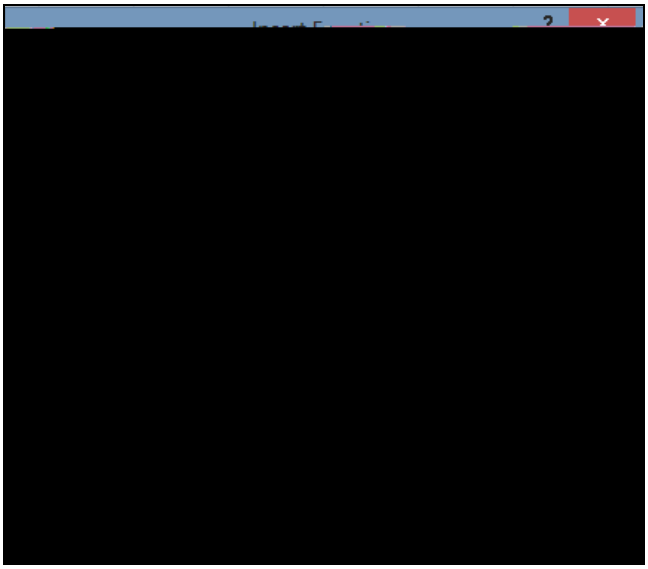

A
B
1 3 7
2 2 6
3 10 11
4 6 10
5 8 7
6 7 7
7 7 9
8 7 10
13

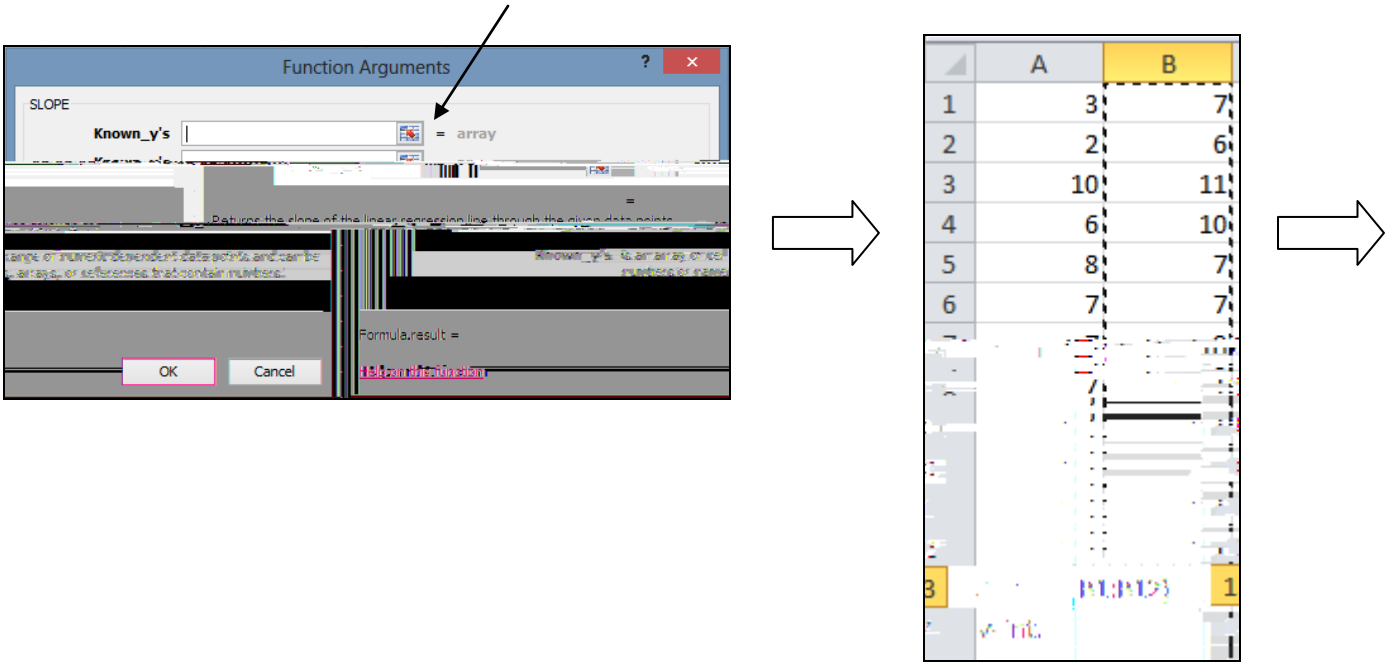

A1:A12

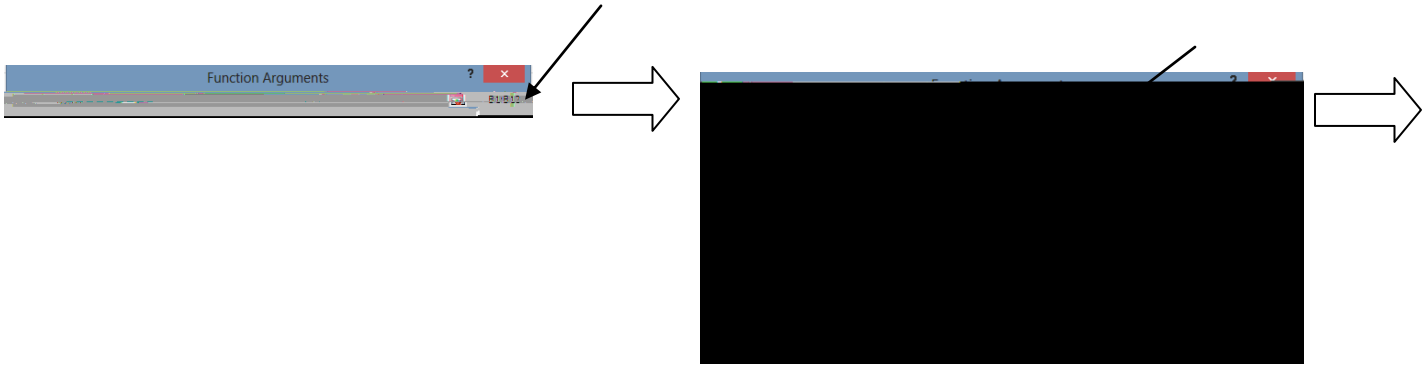


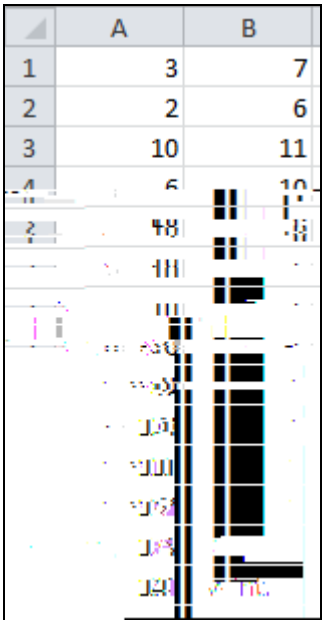



File
Home
Insert
Page Layout
Formulas
Logical
Text
Date & Time
Insert Function
AutoSum
Recently Used
Function Library
B13
A
B
C
D
E
1 3 7
2 2 6
3 10 11
4 6 10
5 8 7
6 7 7
14

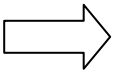


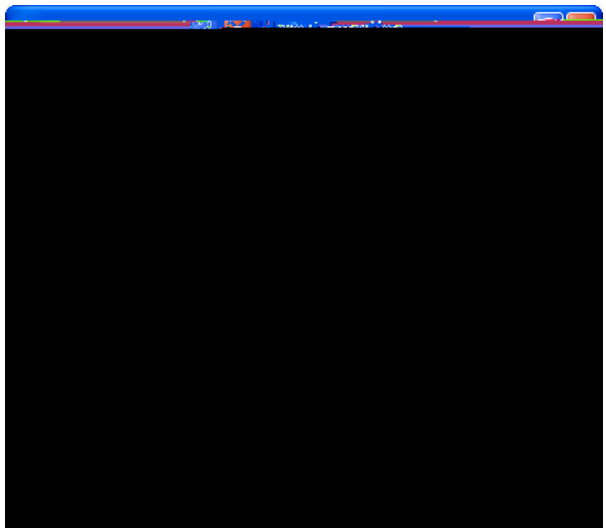

Function Arguments
SLOPE
Known_y's
= array
Formula result =
OK
Cancel
A
B
1 3 7
2 2 6
3 10 11
4 6 10
5 8 7
6 7 7

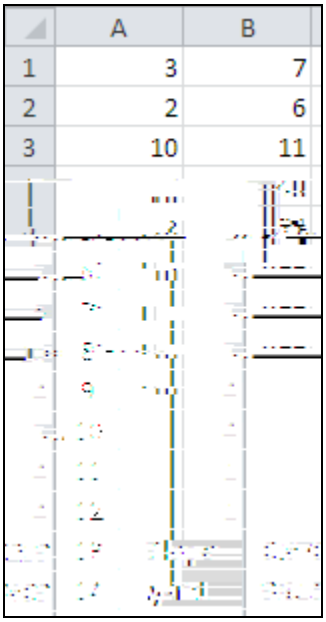

Function Arguments



	A	B
1	3	7
2	2	6
3	10	11







	A	B
1	3	7
2	2	6
3	10	11

$$y \quad 0.670x \quad 3.816$$

Example 2: Find the correlation of the data below. Then compare the result with your estimation from the first example.

	A	B
1	3	7
2	2	6
3	10	11
4	6	10
5	8	7
6	7	7
7	7	9
8	7	10
9	4	4
10	4	7
11	1	4
12	1	4
13		

You Try: Find the correlation of DATA SET A and B. Then compare the result with your estimations from the previous you try's.

Example 3: Find the line of best fit for the data below. Does the line of best fit look reasonable based on your scatter plot from example 1.

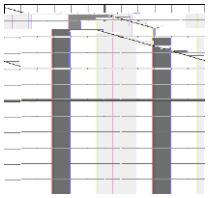
	A	B
1	3	7
2	2	6
3	10	11
4	6	10
5	8	7
6	7	7
7	7	9
8	7	10
9	4	4
10	4	7
11	1	4
12	1	4
13		

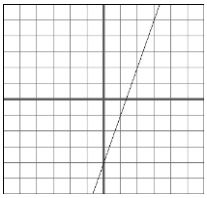
You Try: Find the line of best fit for the DATA SET A and B. Does the line of best fit look reasonable based on the scatter plots from the first you try's.

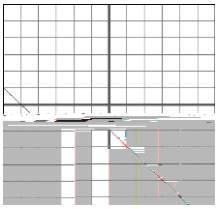
Think Pair Share: What advantages does technology give us when given a bivariate data set?

Warm-Up

Algebra 1 F.IF.6



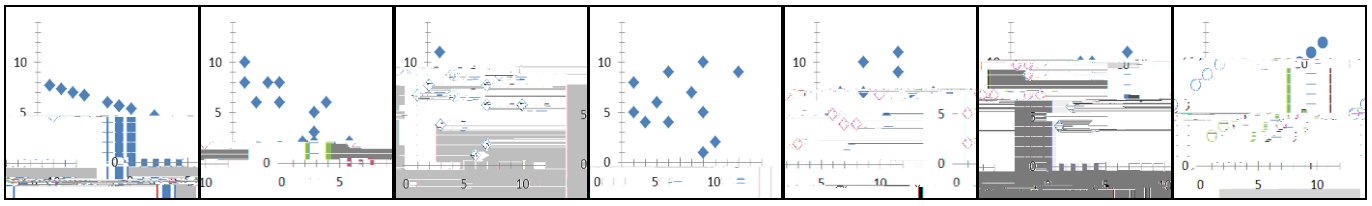


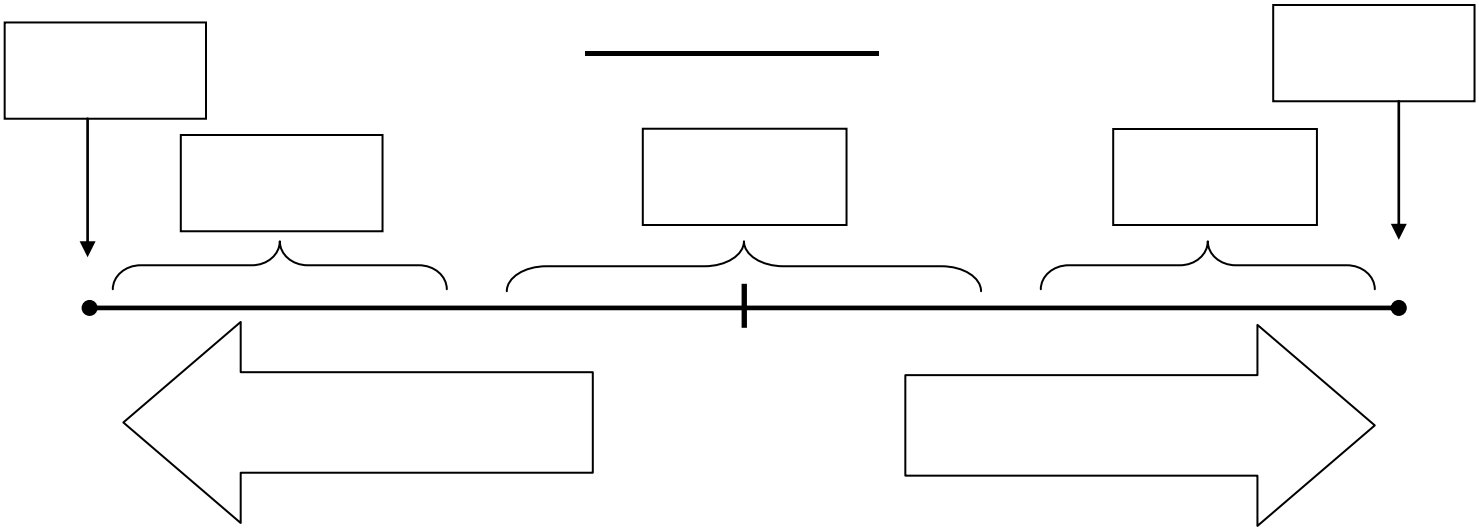


Algebra 1 F.IF.6

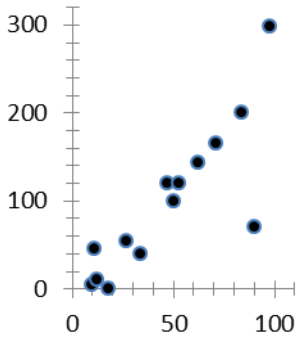
1, 2 7, 7

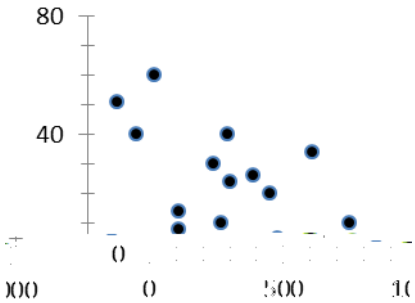
Scatter Plot:





Example 1: Look at the two scatterplots and answer the questions below.



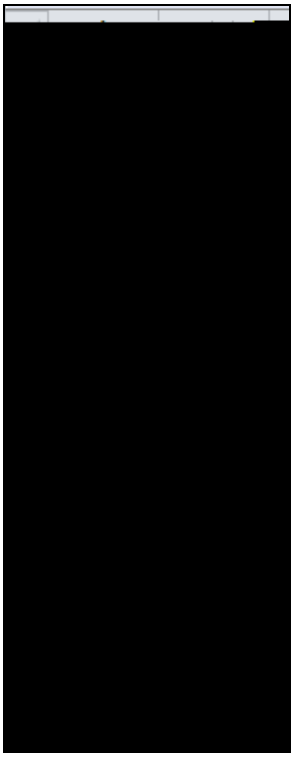


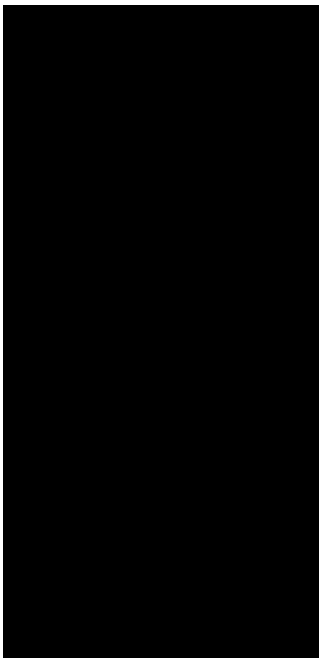
Example 3: The following scatterplot displays the days present at school and the G.P.A. of 50 students. Answer the following questions regarding the scatterplot.

Example 1: Input the data below and display it on a scatter plot. Then estimate the correlation.

	A	B
1	3	7
2	2	6
3	10	11
4	6	10
5	8	7
6	7	7
7	7	9
8	7	10
9	4	4
10	4	7
11	1	4
12	1	4
13		

You Try: Input the data below and display it on a scatter plot. Then estimate the correlation.





Example 2: Find the correlation of the data in example 1. Then compare the result with your estimation from the first example.

You Try: Find the correlation of DATA SET A and B. Then compare the result with your estimations from the previous you try's.

r _____ r _____

Example 3: Find the line of best fit for the data from example 1. Does the line of best fit look reasonable based on the scatter plot.

m _____ b _____

You Try: Find the line of best fit for the DATA SET A and B. Does the line of best fit look reasonable based on the scatter plots from the first you try's.

Exit Ticket: Use the data below to answer the following questions.