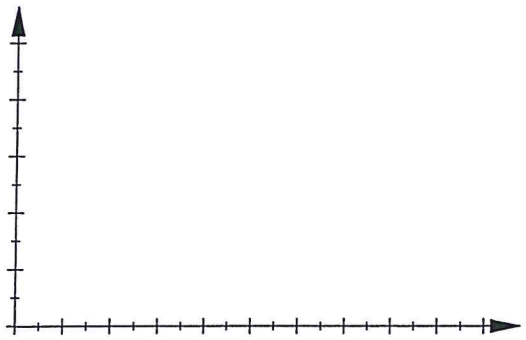
Algebra 1 Bellwork Thursday, February 4, 2016

1. The table below shows the amount of corn stored in the silo for the number of days in September.

# Days	2	5	7	14	17
# Pounds of Corn	452	622	850	1288	1479

a. Make a scatter plot of this data using the graphing calculator. Sketch the graph below and place titles on the axes.



b. Find the equation of the line of best fit. Round to the nearest hundredth.

c. Graph this line on the calculator along with the scatter plot. Draw this line on your scatter plot above.

d. Predict the amount of corn stored after 10 days.

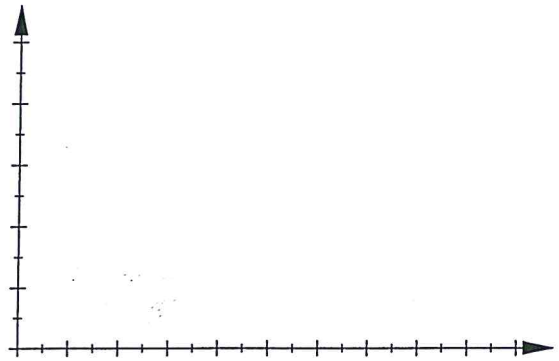
e. Predict the number of days it would take to store 2000 pounds.

f. Write down the Correlation Coefficient rounded to the nearest thousandth. $r =$

2. An object is shot into the air and its height is recorded at different times. The data is shown in the table.

Time (sec)	1	3	5	7	9
Height (ft)	282	731	1053	1244	1307

a. Make a scatter plot of this data using the graphing calculator. Sketch the graph below and place titles on the axes.



b. Find the equation of the line of best fit. Round to the nearest hundredth.

c. Graph this line on the calculator along with the scatter plot. Draw this line on your scatter plot above.

d. Write down the Correlation Coefficient rounded to the nearest thousandth. $r =$

Algebra 1 Bellwork Thursday, February 4, 2016 ANSWERS

1. The table below shows the amount of corn stored in the silo for the number of days in September.

# Days	2	5	7	14	17
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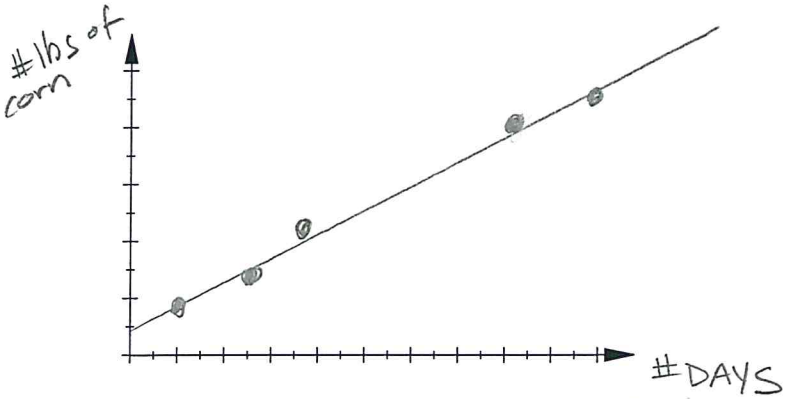
a. Make a scatter plot of this data using the graphing calculator. Sketch the graph below and place titles on the axes.



b. Find the equation of the line of best fit. Round to the nearest hundredth. $y = 69.11x + 316.17$

c. Graph this line on the calculator along with the scatter plot. Draw this line on your scatter plot above.

d. Predict the amount of corn stored after 10 days. $69.11(10) + 316.17 = 1007.27$ lbs

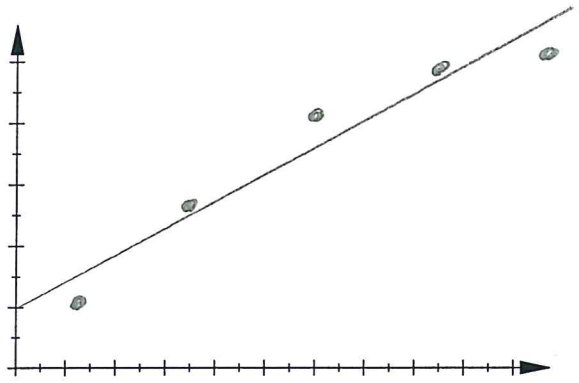
e. Predict the number of days it would take to store 2000 pounds. $2000 = 69.11x + 316.17$, $-316.17 \quad -316.17$, $\frac{1683.83}{69.11} = \frac{69.11x}{69.11}$, $x = 24.36$ days

f. Write down the Correlation Coefficient rounded to the nearest thousandth. $r = 0.997$

2. An object is shot into the air and its height is recorded at different times. The data is shown in the table.

Time (sec)	1	3	5	7	9
Height (ft)	282	731	1053	1244	1307

a. Make a scatter plot of this data using the graphing calculator. Sketch the graph below and place titles on the axes.



b. Find the equation of the line of best fit. Round to the nearest hundredth. $y = 128.15x + 282.65$

c. Graph this line on the calculator along with the scatter plot. Draw this line on your scatter plot above.

d. Write down the Correlation Coefficient rounded to the nearest thousandth. $r = 0.958$