

AMDM

Name KEY 11-29-16

Plot the following data on the graph. Give the linear regression equation and the r-value. State if the data represents a strong, weak, positive or negative correlation.

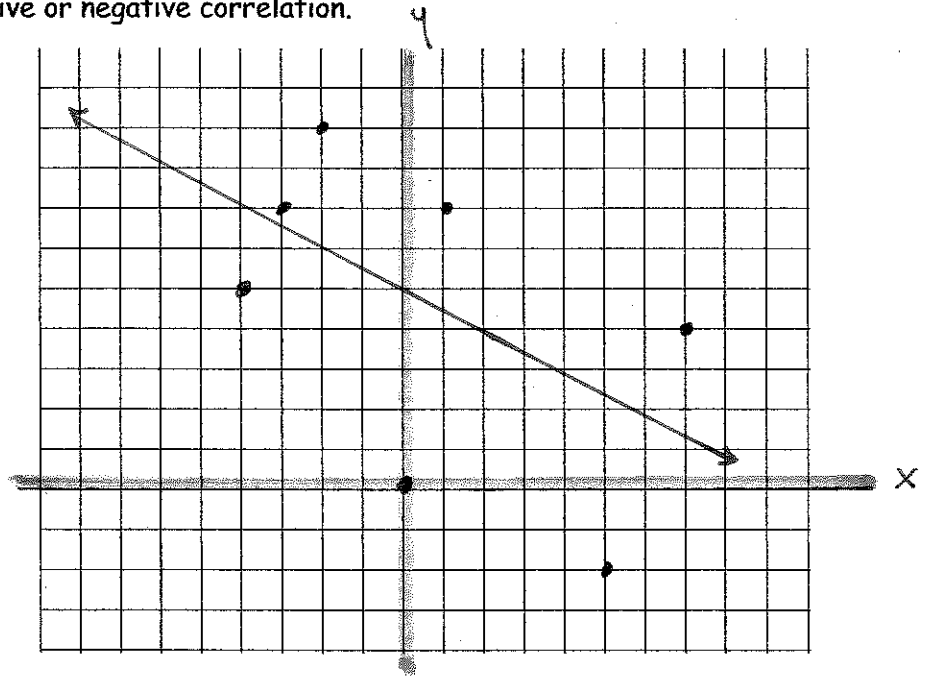
X	Y
-4	5
-3	7
-2	9
0	0
1	7
5	-2
7	4

$y = mx + b$ (slope intercept)

$y = -.5028x + 4.57$

$r = -.519$

SP WP SN **WN**



AMDM

Name _____

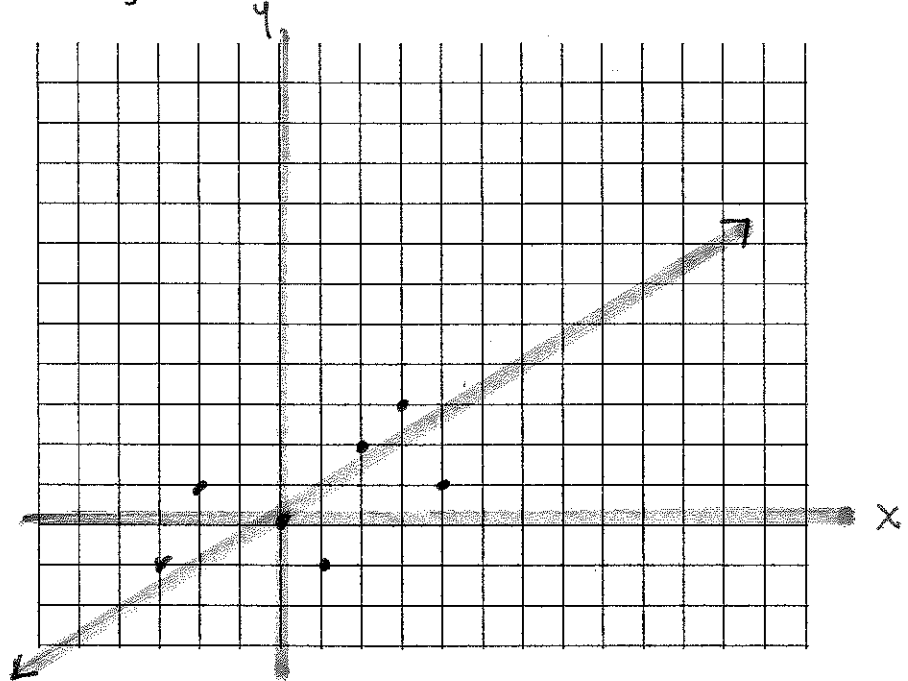
Plot the following data on the graph. Give the linear regression equation and the r-value. State if the data represents a strong, weak, positive or negative correlation.

X	Y
-3	-1
-2	1
0	0
1	-1
2	2
3	3
4	1

$y = .341x + .471$

$r = .583$

SP **WP** SN WN



Follow these instructions carefully.

Chosen Latitude 34° 17' 52.364 N Gainesville, Ga

1. Complete the table at right.
 - a) Figure out the day number for each date.
 - b) Copy the number of hours of daylight from the printout for each date.
 - c) Convert the number of hours in decimal form to number of minutes. Round up to the next whole minute. For example: To convert 13.78 hours of daylight, multiply 13.78 by 60 to get 826.8, which rounds to 827 min.

DATE	DAY NUMBER	HOURS DAYLIGHT	MINUTES DAYLIGHT
Jan 1	1	9:55	595
Feb 1	32	10:30	630
Mar 1	60	11:26	686
Apr 1	91	12:33	753
May 1	121	13:33	813
Jun 1	152	14:18	858
Jul 1	182	14:24	864
Aug 1	213	13:51	831
Sep 1	244	12:54	774
Oct 1	274	11:50	710
Nov 1	305	10:47	647
Dec 1	335	10:02	602

2. Calculate the regression model for the information.

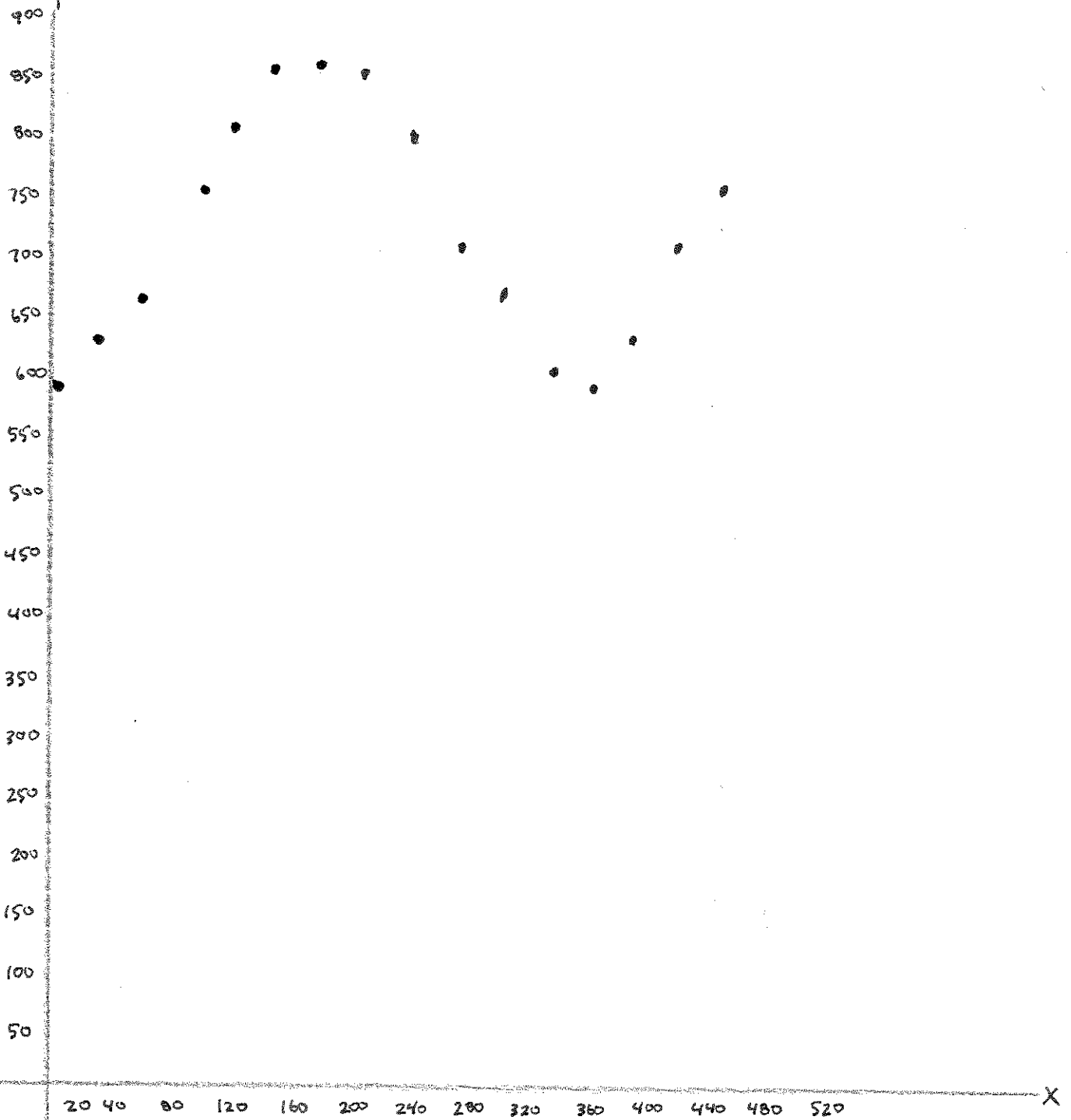
3. Find your Max and min in terms of minutes

$(\text{Max}-\text{Min}) / 2$ Does this match with your "a"? If not why do you think it doesn't match?

4. Google your latitude on the web and find a city that has your latitude. There is a great list at wikipedia.

5. Find your opposite in the class. Write their name and which city they had.

(Daylight Hours)
recorded in minutes



(Days in the Year)

Gainesville, Ga.

Lat: $34^{\circ}17'52.364$ N

DAYLIGHT HOURS