

Collecting Data

Price	Sell
\$ 90	20
\$ 80	20
\$ 100	8
\$ 120	5
\$ 140	3

ENTER DATA

STAT 1:0
 BUTTON Button 1

L1	L2
90	20
80	21
100	8
120	5
140	3

NOTE

Define

2nd Y= = Stat plot

Plot Data

Stat plot 1:0 Enter
Zoom 9:0 zoomstat ← Notes

Regression (Get a Function)

STAT \rightarrow 4: Linreg \langle center \rangle \langle center \rangle
blue button

$$y = ax + b$$

$$a = -0.3198 \dots \quad (\text{slope})$$

$$b = 45.30 \dots \quad (y\text{-intercept})$$

Graph Equation

Y= VARS 5: \rightarrow \rightarrow 1:

Graph

Evaluate

$$f(x) = x + 1$$

$$f(3) = 3 + 1 = 4$$

Plug in for

X Y₁(110)

Solve

$$y = x + 1$$

$$20 = x + 1$$

$$\begin{array}{r} -1 \quad -1 \\ \hline 19 = x \end{array}$$

$$19 = x$$

Solve for X
given Y

VARs \rightarrow 1: 1: Y,

Solve

MATH 0: Solve

TABLE

Table = 2nd Graph.

110	10.12
115	9.52

$$0 = Y - (X+1)$$

$$0 = X+1 - Y$$

"Y" = Alpha 1

X = alpha enter

$$Y = 20$$

Math 0: Solve

0 = VARs 5: \rightarrow \rightarrow 1

E Y

" If I charge \$110 I'll sell 10 books

" If I want to sell 1 book,
I charge \$138.51

Team 3

GROUP NAME:

Student Names (First and Last)

Date: 1/28/14

Speaker/Presenter: Benjamin Infosino

Independent Variable (x-axis): height

Writer/Prep: Blake Beale

Dependant Variable (y-axis): weight

Leader/Collaborator: Kevin Leonardi

Conclusion (in words):

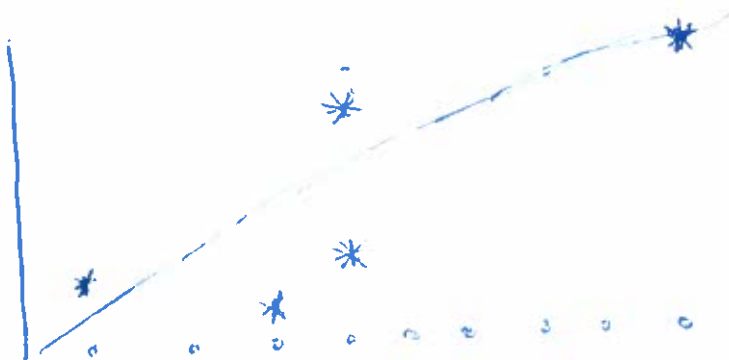
- if a person is 5'7" they will weigh 125 pounds.
- if you weigh 225 you should be 6'3" tall.

Supporting Work:

X (height)	Y (weight)
5'10"	130
5'8"	225
5'10"	145
7'0"	...
5'7"	120
5'7"	125

$$y = ax^2 + bx + c$$

$$y = -0.4617657584x^2 + 79.2x + 3116.56...$$



GROUP NAME: We love science
 Date: 1/23/14

Independant Variable (x-axis): Price

Dependant Variable (y-axis): Used iPhone

Student Names (First and Last)
 Speaker/Presenter: Love Kenneth
 Writer/Prep: yvette Aguilar
 Leader/Collaborator: Marta Trusekowska

Conclusion (in words):

- If I charge \$66 I will make 1250
- If I want to ~~sell~~ ^{make} \$1200 I will charge 73.10

Supporting Work:

* selling used iPhone *

price	sell =	revenue
\$60	20	1,200
\$80	16	1,280
\$100	10	1,000
\$120	3	360
\$140	2	280

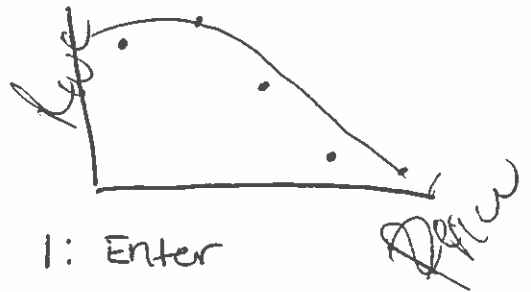
Function / Equation use regression quadratic

STAT →

5: ENTER

~~XXXXXXXXXXXXXXXXXXXXXXXXXXXX~~

$y = -.12...x^2 + 10.48...x + 1086.85...$



Enter Data

STAT 1:

60	1200
80	1280
100	1000
120	360
140	280

Plot Data

STAT 2nd || y = 1: Enter

zoom 9:



GROUP NAME: Pratik, Karthik

Student Names (First and Last)

Date: 1/23/2013

Speaker/Presenter: Sman Rehman

Independent Variable (x-axis): Price

Writer/Prep: Karthik, Pratik

Dependent Variable (y-axis): Sales of iPhones

Leader/Collaborator: Nour Cheema

Conclusion (in words):

If we ~~change~~ ^{change} \$200 up ~~price~~ we sell 17.35
we get ~~17.35~~ want to sell 100, change \$70

Supporting Work:

collecting data ↓ phone

Price	Sell
\$ 110	80
\$ 120	70
\$ 150	65
\$ 170	50
\$ 180	38

$$y = ax + b$$

$$a = -.5236 \dots$$

$$b = 137.0537 \dots$$

Graph equation

$$Y = \text{VARS } 5 : > > 1 :$$

Graph

Table = [2nd] Window

Graph

Enter data

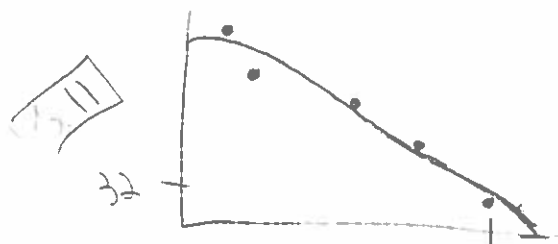
[STAT] → 1:

[2nd] [Y=] = stat plot

stat plot 1 : [Enter]

[Zoom] 9:

[stat] (→) 4 : Linreg <enter> <enter> [F1] 2nd



GROUP NAME: <u>We ♥ Math</u>	Student Names (First and Last)
Date: <u>1/28/14</u>	Speaker/Presenter: <u>Kelly</u>
Independent Variable (x-axis): <u>Price</u> <i>9 weeks</i>	Writer/Prep: <u>JACK</u>
Dependant Variable (y-axis): <u>Sales</u>	Leader/Collaborator: <u>Craig Shover</u>

Conclusion (in words): The maximum profit of \$120 could be achieved by selling 5 sweaters at \$26.49. In order to make \$120 we would have to sell sweaters at \$40.78 and in order to make \$120 we would have to sell sweaters at \$33.22.

Supporting Work:
 $a = -.1988$
 $b = 11.369$

Price	QTY	Revenue
10	5	50
20	15	300
25	7	175
30	2	60
50	1	50

$$y = -.29...x^2 + 13.79...x - 17.11$$

Maximum at $y = 24.44$ $y = 71.41$



GROUP NAME: <u>The Team, Best Team</u>	Student Names (First and Last)
Date: <u>01-28-2014</u>	Speaker/Presenter: <u>Jesse Schollman / Stephen Burns</u>
Independent Variable (x-axis): <u>Fan Speed</u>	Writer/Prep: <u>Eli / Kimberly</u>
Dependant Variable (y-axis): <u>Computer Temp.</u>	Leader/Collaborator: <u>Khaled Hassan</u>

Conclusion (in words):
 If you set your fan speed to 100 rpm your computer temp is 67°

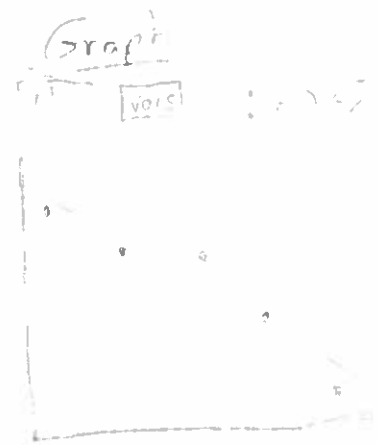
Supporting Work:

Fan Speed (rpm)	Computer Temp (°F)
100	97°
120	88.5°
140	80°
160	71.5°
180	67°

$y = ax + b$
 $a = -0.375$
 $b = 120.5$
 $y = -0.375x + 120.5$

IF you want computer temp to be 67°
 Set fan speed to 175.7 rpm

Graph



Linear regression (calc)

GROUP NAME: _____
 Date: _____

Student Names (First and Last)

Speaker/Presenter: _____

Independent Variable (x-axis): Time

Writer/Prep: _____

Dependant Variable (y-axis): Population (under)

Leader/Collaborator: _____

Conclusion (in words): Next year will be...
 ...
 ...

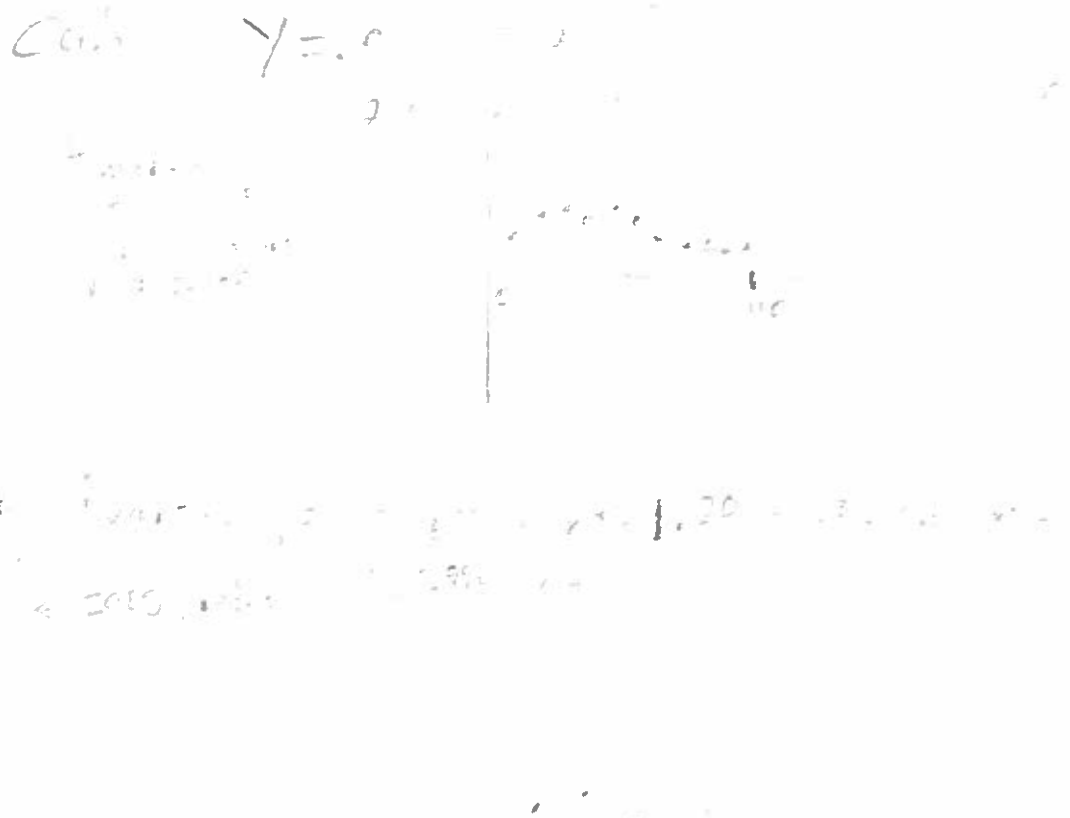
Supporting Work:

$C = 1.02$

Time	Pop
0	75935 *
10	84838
20	94838
30	105838 *
40	117838 *
50	129838 *
60	142838 *
70	156838 *
80	171838 *
90	187838 *
100	204838 *

Predictions:

110	223838 *
120	243838 *
130	265838 *
140	289838 *
150	315838 *



Predictions:

110	223838 *
120	243838 *
130	265838 *
140	289838 *
150	315838 *

GROUP NAME:

Date: 1/28/14

Student Names (First and Last)

Speaker/Presenter: Christian Guerra

Independent Variable (x-axis): Cost Tickets

Writer/Prep: Clifford Basquin

Dependant Variable (y-axis): Revenue

Leader/Collaborator: El. Amponga

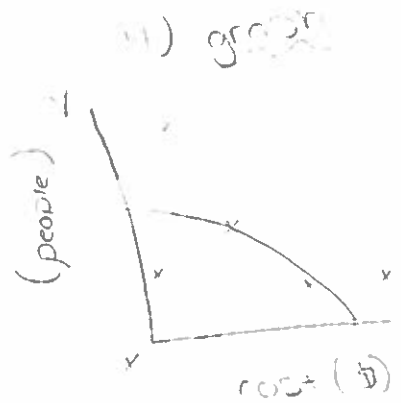
Conclusion (in words): When charging \$1 per ticket to a football game our revenue would be at its peak point of 4.85. When charging 11\$ per ticket we would be losing money (-.3235). To get a minimum of 4.2 we would have to charge 5\$.

Supporting Work: How much would a high school football game cost?

Cost (\$)	Quantity	Revenue
15	3	7.5
10	7	21
5	4	20
2	2	16
1	1	10

2) $y = -0.59x^2 + 2.20x + 4.6...$

$y =$ $x^2 > > 1: \text{Reg}$



Table

$9 = 1.6$

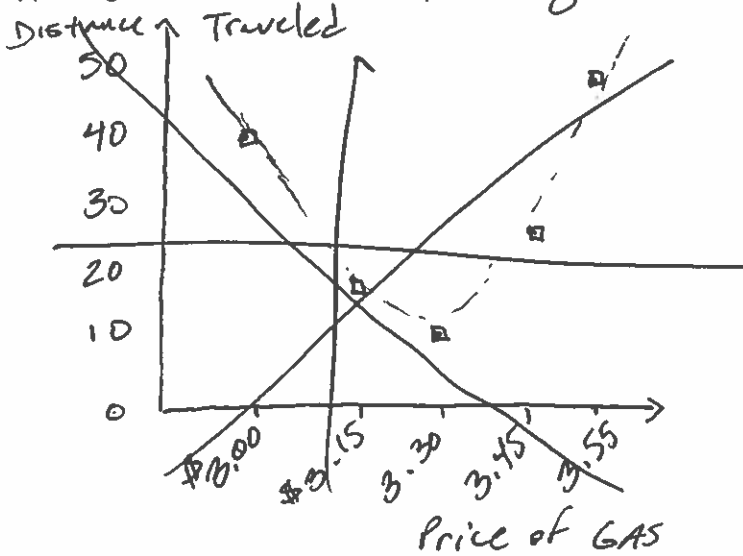
Give
4.8 → 1
4.34 → 4

GROUP NAME:	Student Names (First and Last)
Date: <u>28 Jan 2014</u>	Speaker/Presenter: <u>Paul Klos</u>
Independent Variable (x-axis): <u>Price of GAS</u>	Writer/Prep: <u>Byron</u>
Dependant Variable (y-axis): <u>Distance Traveled</u>	Leader/Collaborator: <u>Ricky Wilson</u>

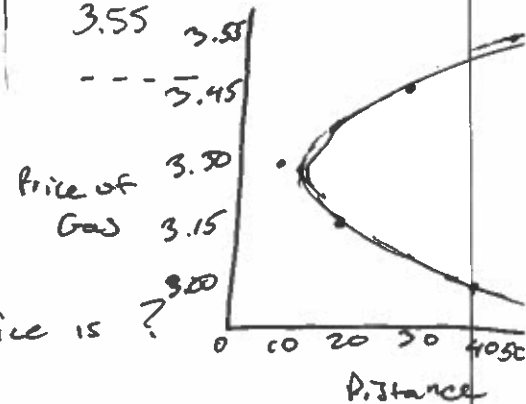
Conclusion (in words):

If we ~~for~~ wait 30 miles to fill up it will be \$3.45 15¢ more than if we had @ mile

Supporting Work: The Penny Pinching GAMBLER



L 1	L 2	MARKER 10.
10	3.3	
20	3.15	
30	3.45	
40	3.00	
50	3.55	



Driving x Amount of Distance the Gas Price is ?

After 10 mi the Price was \$3.30

After 20 mi \$3.15

- STEPS
- ① [STAT] [1] [ENTER DATA]
 - ② [STAT PLOT]
 - ③ [STAT] [5] ENTER
 - ④ [Y=] [VARS] [15] [2] [3] [GRAPH]
 - # [1] ENTER
 - ZOOM 9

cam 1

GROUP NAME:

Student Names (First and Last)

Date: 1/28/14

Speaker/Presenter: Dorian Thomas

Independent Variable (x-axis): # of people Price

Writer/Prep: Zoboo

Dependant Variable (y-axis): Price # of people

Leader/Collaborator: Alicia Antinisia

Conclusion (in words): How much would the average person pay for a box of...

Supporting Work:

x	y	Price	# of people	Revenue
3	\$21	\$4	2	12
5	4	\$5	5	25
1	\$6	\$6	1	6
1	\$10	\$10	1	10

$y = ax^2 + bx + c$
 $y = .07x^2 - 1.54x + 3.2$
 The average person will buy the product @
 5 we will sell

of 10 people the revenue is 10

If we want to sell for \$5 we would sell it to 3 people

GROUP NAME: Newbees

Student Names (First and Last)

Date: 1/28/14

Speaker/Presenter: Khristyna Pavlyuchenk

Independent Variable (x-axis): price of books

Writer/Prep: Bailey Martinez

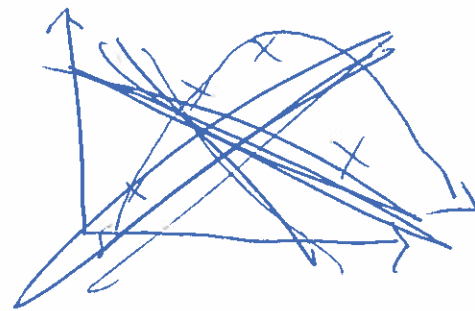
Dependant Variable (y-axis): sales of books

Leader/Collaborator: Li Yang Lin
each for \$68.50

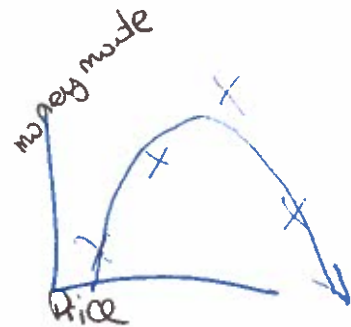
Conclusion (in words):
we need to sell ~~1000~~ books to make the ~~profit~~ (\$1,168.90) or to earn \$1167.30 have to sell for \$68.50

Supporting Work:

25	500
50	1000
75	1200
100	700



$$y = -.4x^2 + 53.2x - 6000$$



Price	# of books	Revenue
25	20	500
50	20	1000
75	16	1200
100	7	700

GROUP NAME: <u>Money Bags</u>	Student Names (First and Last)
Date: <u>1/21/14</u>	Speaker/Presenter: <u>Melissa Scarpati</u>
Independent Variable (x-axis): <u>price</u>	Writer/Prep: <u>Angelica I...</u>
Dependant Variable (y-axis): <u>people sales</u>	Leader/Collaborator: <u>Kevin E...</u>

Conclusion (in words):
 If we charge \$80 for an Android cell phone, we will sell 21 of them. If we sell them for \$200, we will sell 13 of them. If we charge \$400, we will sell 6 of them. If we charge \$600, we will sell 2 of them. If we charge \$800, we will sell 1 of them.

Supporting Work:
 How much would people pay for an Android cell phone?

price (x)	sales (y)
80	21
100	19
200	13
400	6
600	2
800	1

3) $\frac{1}{1.05} = 0.9524$

$\frac{1}{1.05} = 0.9524$ (or) $\frac{1}{1.05} = 0.9524$

4) $\frac{1}{1.05} = 0.9524$

$\frac{1}{1.05} = 0.9524$ (or) $\frac{1}{1.05} = 0.9524$

(or) $\frac{1}{1.05} = 0.9524$

$\frac{1}{1.05} = 0.9524$ (or) $\frac{1}{1.05} = 0.9524$ X 125.50.

5) $\frac{1}{1.05} = 0.9524$ (or) $\frac{1}{1.05} = 0.9524$

(or) $\frac{1}{1.05} = 0.9524$ (or) $\frac{1}{1.05} = 0.9524$

