


$$y = ax^2 + bx + c$$
 Correlation = r^2
 closeness of data to regression

GROUP NAME: <u>ILM</u>	Student Names (First and Last)
Logo: 	Speaker/Presenter: <u>Jake Prebles</u>
Date: _____	Writer/Prep: <u>Hiral Desai</u>
Topics: <u>Find 3 Best Regression.</u>	QC/Leader: <u>Kevin Velasquez</u>

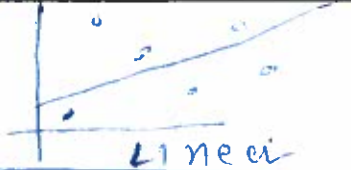
Instructions:

* → Natural Gas Consumption

x	y
1960	12.4
1970	21.8
1980	20.4
1990	19.3
2000	22.6
2010	21.4

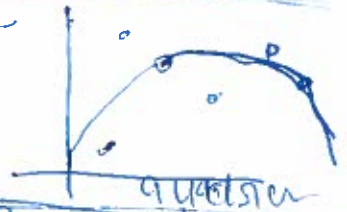
* Linear $y = ax + b$

$$r^2 = 0.43$$



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

$$r^2 = 0.6397$$



* Cubic Reg $y = ax^3 + bx^2 + cx + d$

$$y = 4.05x^3 - 2.42x^2 + 48181x - 319588$$

$$r^2 = 0.79$$

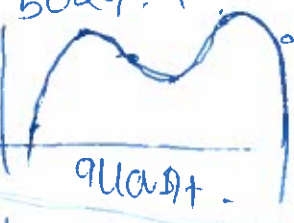


sin.

* Quart Reg

$$y = -4.166x^4 + 0.331x^3 + 981.44x^2 + 1308263.631x - 644975029.4$$

$$r^2 = 0.9$$



sin Reg

* exp Reg

$$y = (2.7231)(1.0019)^x$$

$$r^2 = 0.443$$

exp

quart

* Sin. Reg.

$$y = (1.183) \sin(0.314x + 1.570) + 19.65$$

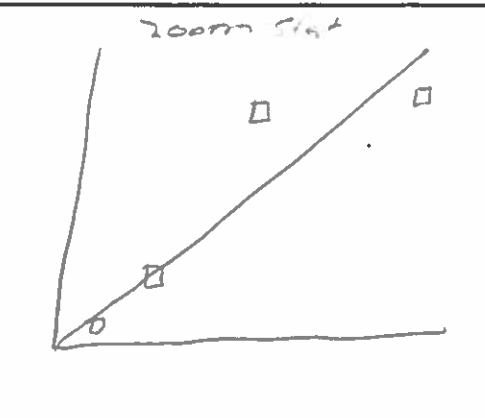
exp

GROUP NAME:	Student Names (First and Last)
Logo:	Speaker/Presenter: <u>Stan Kuptan</u>
Date: _____	Writer/Prep: <u>Valentin...</u>
Topics:	QC/Leader: <u>Mengyi Guo</u> <u>Lianghao Zheng</u>

Instructions:

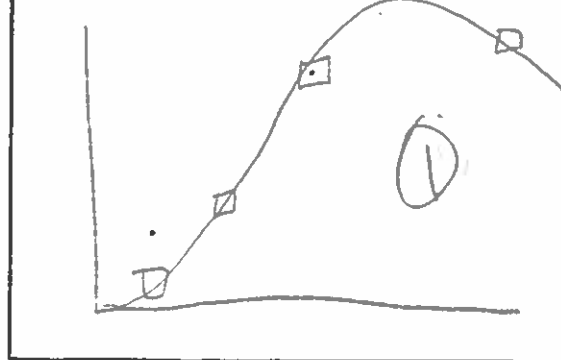
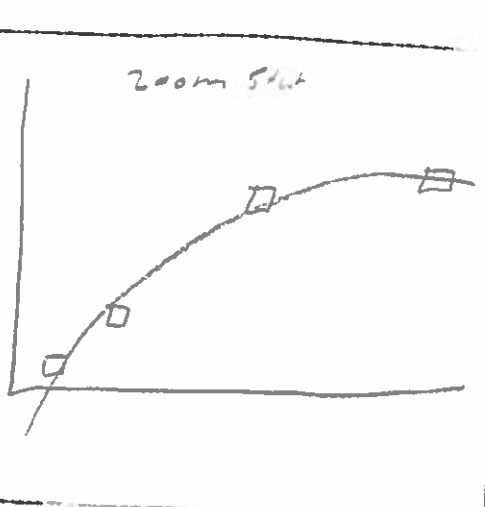
L1	L2
1	1
2	3
5	10
8	12

Lin Reg
 $y = ax + b$
 $a = 1.623111$
 $b = -.033311$
 $r^2 = .94$
 $r = .97$ (4)

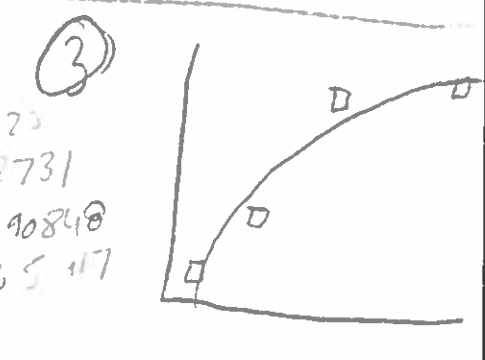


Cubic Reg
 $y = ax^3 + bx^2 + cx + d$
 $a = -.0515873016$
 $b = .873015373$
 $d = -3174663175$
 $R^2 = 1$

Quad Reg
 $y = ax^2 + bx + c$
 $a = -.21212$
 $b = 3.547424$
 $c = -2.6848184$
 $R^2 = .94$
 This is the best (2)



Ln Reg
 $y = a + b \ln x$
 $a = .3161905723$
 $b = -.62402731$
 $r^2 = .9724790848$
 $r = .986113517$ (3)



<p>GROUP NAME:</p> <p>Logo:</p>	<p>Student Names (First and Last)</p> <p>Speaker/Presenter: <u>Natalie Piskillo</u></p>
<p>Date: <u>11/11/13</u></p> <p>Topics: <u>WOLFELOVE POPULATION</u></p>	<p>Writer/Prep: <u>LAUREN DOBSON</u></p> <p>QC/Leader: _____</p>

Instructions:

QUADRATIC
 $y = ax^2 + bx + c$
 $a = -1.714...$
 $b = 68.571...$
 $c = 220$
 $R^2 = 0.918...$

x	y
3	370
10	420
17	370
24	412
31	370

NATURAL LOG

$y = a + b \ln x$
 $a = 20.865$
 $b = 0.064$
 $r = 0.150...$

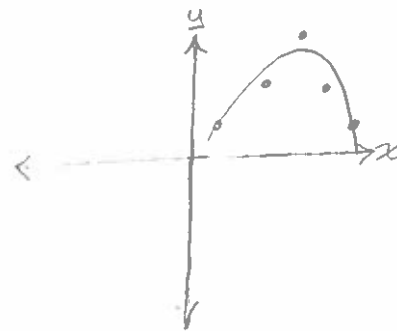
QUADRATIC

$y = ax^2 + bx + c$

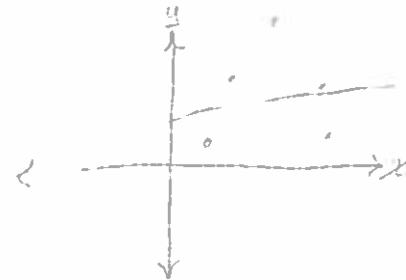
$a = 0$
 $b = -1.714...$
 $c = 68.571...$
 $t = 220$
 $r^2 = 0.918...$

$t = 3, 10, 17, 24, 31$

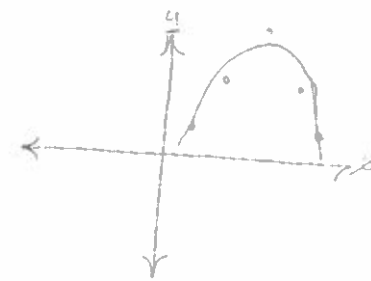
CUBIC
 $y = ax^3 + bx^2 + cx + d$
 $a = 0$
 $b = -1.714...$
 $c = 68.571...$
 $d = 220$
 $r^2 = 0.918...$



~~BAD FOR WOLFELOVE GOOD FOR HUMANS~~



~~GOOD FOR WOLFELOVE BAD FOR HUMANS~~



~~GOOD FOR WOLFELOVE GOOD FOR HUMANS~~

GROUP NAME:

White

Student Names (First and Last)

Logo:

Speaker/Presenter:

Klausalya

Date:

Writer/Prep:

Matthew

Topics:

3 legs

QC/Leader:

Pranav

Instructions:

They will work

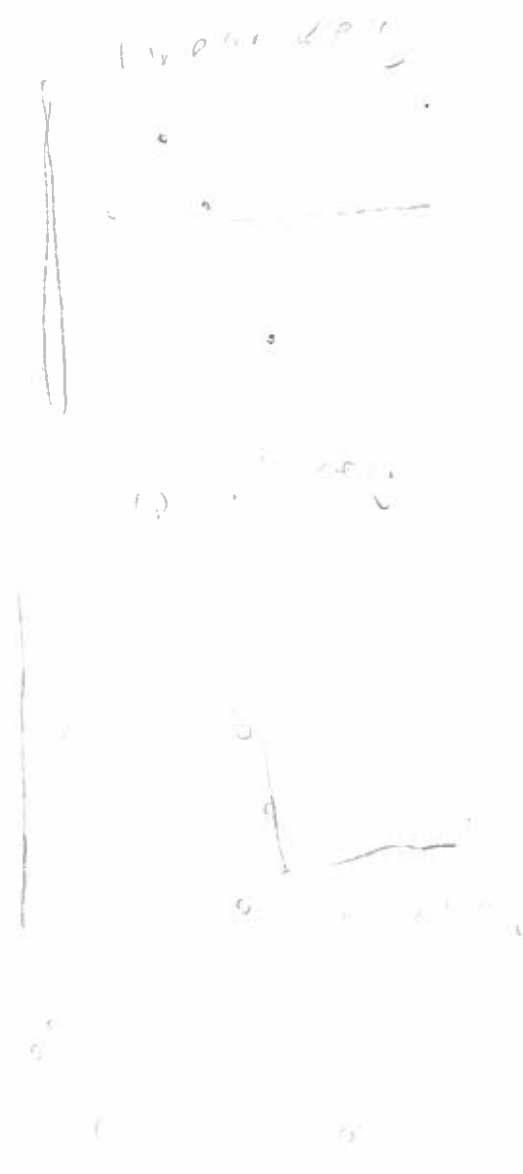
Line

Handwritten notes on the left side of the page, including:

- $y = \frac{1}{3} + b^2 + cv + d$
- $b = -0.06$

Handwritten notes in the middle section, including:

- $y = mx + b$
- $c = 0$
- $b = 1 + t$



GROUP NAME:

Student Names (First and Last)

Logo:

Speaker/Presenter: Shelley

Date: _____

Writer/Prep: Tatiana Ceballos

Topics:

QC/Leader: YOU KNOW

Instructions:

Handwritten notes and graphs on a grid background:

- 1** (circled): Faint handwritten notes and a vertical line graph.
- 2** (circled): A graph with a line and a point, and a star symbol.
- Lin Reg** (circled): Linear Regression notes with the equation $y = 0.14x + 1.2$ and a graph of a line.
- 3** (circled): Cubic Reg (underlined) notes with the equation $y = 0.13x^3 - 2.3x^2 + 6x - 1.2$ and a graph of a cubic curve.
- The best** (circled): Faint handwritten notes.
- Table:**

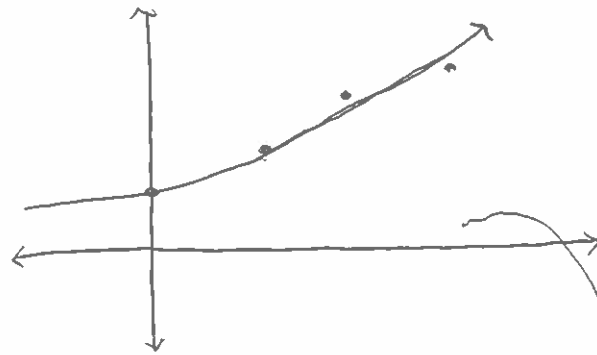
L1	L2
12	4
11	30
0	1
1	1
8	0

<p>GROUP NAME: <u>Mathletes</u></p> <p>Logo:</p>	<p>Student Names (First and Last)</p> <p>Speaker/Presenter: <u>Sharon TSOE</u></p>
<p>Date: <u>11/11/13</u></p>	<p>Writer/Prep: <u>Avik Khanna</u></p>
<p>Topics: <u>Regression 2222</u></p>	<p>QC/Leader: <u>Paul Tucker</u></p>

Instructions:

Exp Reg

$a = 242.2$
 $b = 1.07$
 $r^2 = .93$
 $r = .96$

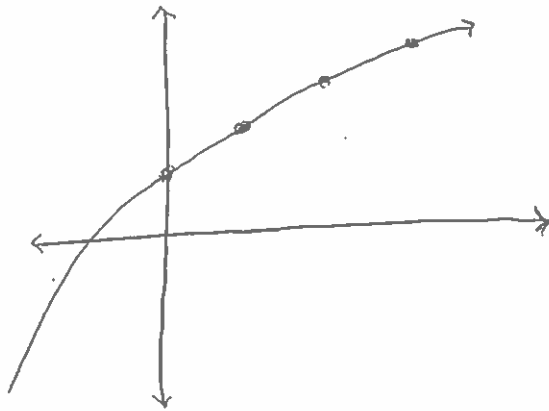


L_1	L_2
0	200
5	400
10	600
15	735
20	920

Value of Share after "x" years.

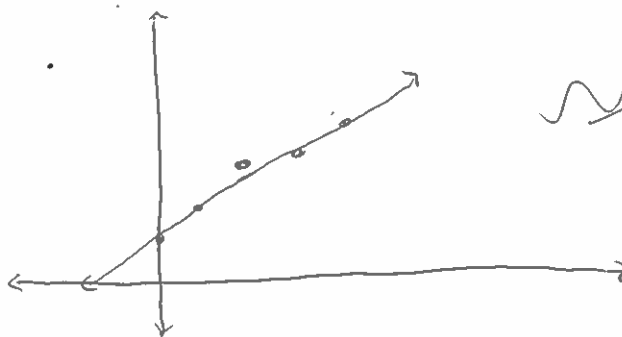
Cubic Reg

$a = .03$
 $b = -1.27$
 $c = 48.09$
 $d = 197.42$
 $R^2 = .99$



Lin Reg

$a = 216$
 $b = 35.5$
 $r^2 = .99$
 $r = .99$

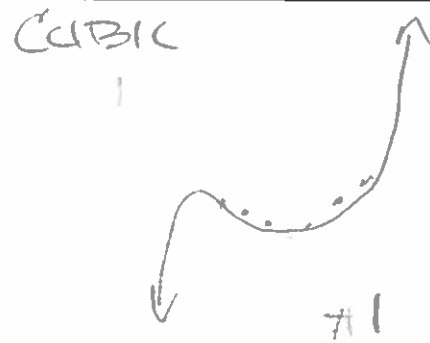


~~Worst~~ **BEST**

GROUP NAME: <u>DA ENGINEERS</u>	Student Names (First and Last) <u>JOE</u>
Logo:	Speaker/Presenter: <u>VIVVIE</u>
Date: <u>11-11-13</u>	Writer/Prep: <u>JIM KURON</u>
Topics:	QC/Leader: <u>HARRISON</u>

Instructions: CUBIC, LN, QUADRATIC

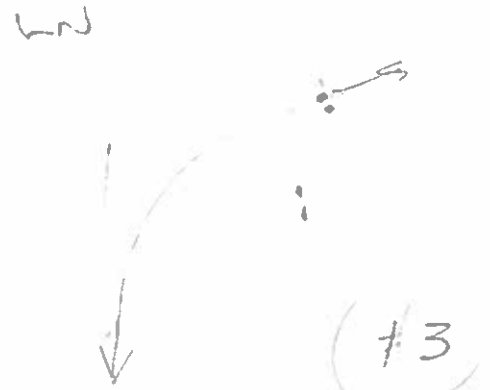
DATA YEAR	# CLASSIC ROCK ALBUMS SOLD
1960	187
1970	134
1980	58
1990	35
2000	124
2010	201



$a = .002...$, $b = -12.558...$, $c = 24462.82$
 $d = -15377568.48$ $R^2 = .931$



$a = .233...$, $b = -928.47$
 $c = 921689.728...$
 $R^2 = .9175$



$a = -419.48$
 $b = 71.470$
 $R^2 = 1.0137E-11$