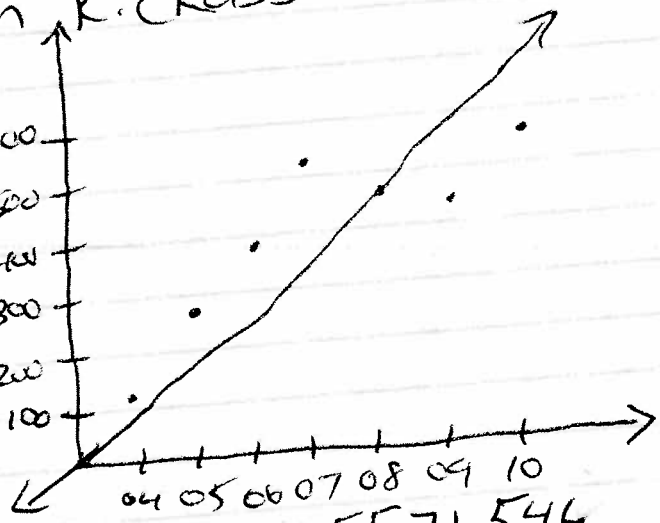
Max Finn
Stan Yen
Bianca Tajariello

Team kickass

Year	Price
2004	100.1
2005	288.45
2006	378.60
2007	515.25
2008	463.29
2009	461.30
2010	542.42



LinReg => $y = 62.7625x + -125571.546$

Average Rate of Change

$$\frac{542.42 - 100.1}{2010 - 2004} = \frac{442.32}{6} = 73.72 \text{ \$/year}$$

calculus... Team: 6

1/27/10

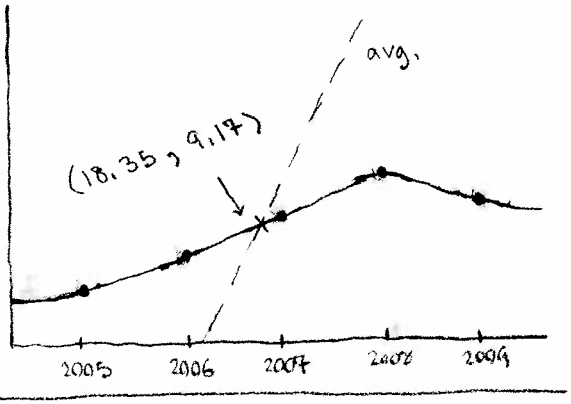
Jonathan Chen
Mike Gankhuyag
Guan Z

- cubic regression graph:

Starbucks annual revenue (2005 - 2009):

[rev. in billions]

year:	total in billions:
2005	6.37
2006	7.79
2007	9.41
2008	10.4
2009	9.77



- {cubic regression}

$-1.51666666668E^{-4}(x^3)+0.00572142857142(x^2)+$
$0.0988095238095(x)+6.3722857142857$

- average: $\frac{\Delta y}{\Delta x} = \$8.748$ billion

Team Empire

Laquan Drummer

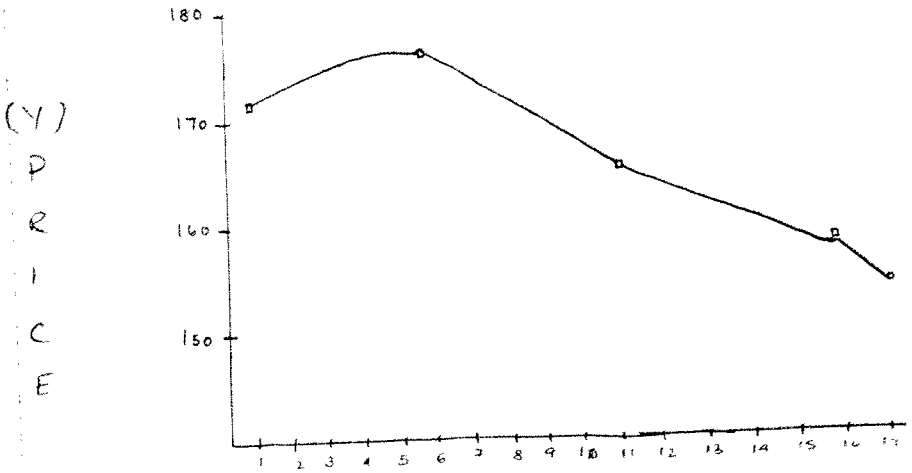
Sal Janagirdar

Fabian Best

Calc Hw

Data for Goldman Sachs,

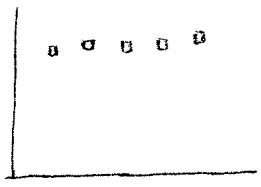
17 Day Price fluctuations.



* Prices are in estimate *

(I)

x	Y
→ 1	171.00
2	173.00
3	174.00
4	174.00
5	177.00
→ 6	176.00
7	173.00
8	169.00
9	167.00
10	168.00
→ 11	165.00
12	167.00
13	165.00
14	165.00
15	155.00
→ 16	157.00
→ 17	154.00



(II) Exponential Regression

$y = ab^{x}$

$a = 179.025\ldots$

$b = .9926\ldots$

(III) Parabolic Regression

$y = ax^2 + bx + C$

$a = -.1113\ldots$

$b = .7808\ldots$

$C = 172.30\ldots$

(IV) $\therefore \frac{\Delta y}{\Delta x} \Rightarrow \frac{-17}{16} \approx -1.06$/day

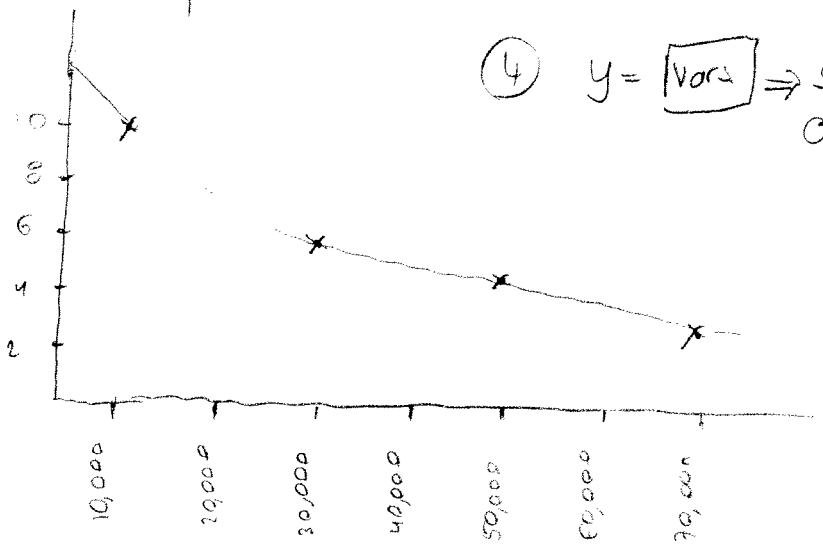
↳ Average Rate of Change,

Marriar

car cost	people who want to buy
$70,000	3
$50,000	5
$30,000	6
$10,000	10

① STAT ⇒ 1:Edit ⇒ Enter

② 2nd ⇒ y ⇒ plot 1 ON ⇒ zoom ⇒ 9: zoomStat enter



④ y= Vars ⇒ 5 ⇒ EQ ⇒ 1:RegEQ ⇒ Enter Graph

$y = a * b^{\wedge} x$

$a = 11.698\ldots$

$b = .999\ldots$

③ STAT ⇒ CALC ⇒ 0: ExpReg, enter ⇒ enter

Average Rat of Change

$$\frac{70,000-10,000}{10-2} \quad \frac{10-2}{70,000-10,000} = \frac{8}{60,000} = 1.3\ldots e^{-4}$$

Will An
Yves M

Abe Espar
Jan 27, 20

Project #1

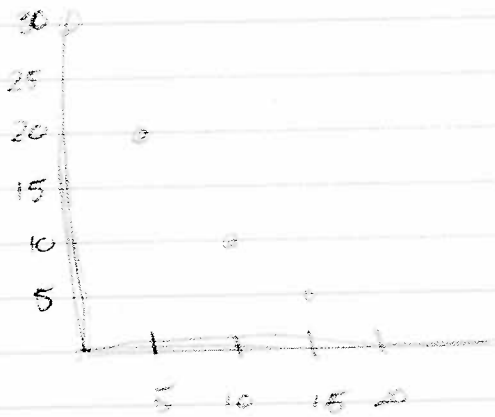
How Many People Would Tiger Woods Invite on how many girlfriends "Estimated"

L_1	L_2
0	30
5	20
10	10
15	5

L_1 - Girlfriends

L_2 - people that like him

$$V = \frac{\Delta y}{\Delta x} \frac{25}{15} = 1.67$$

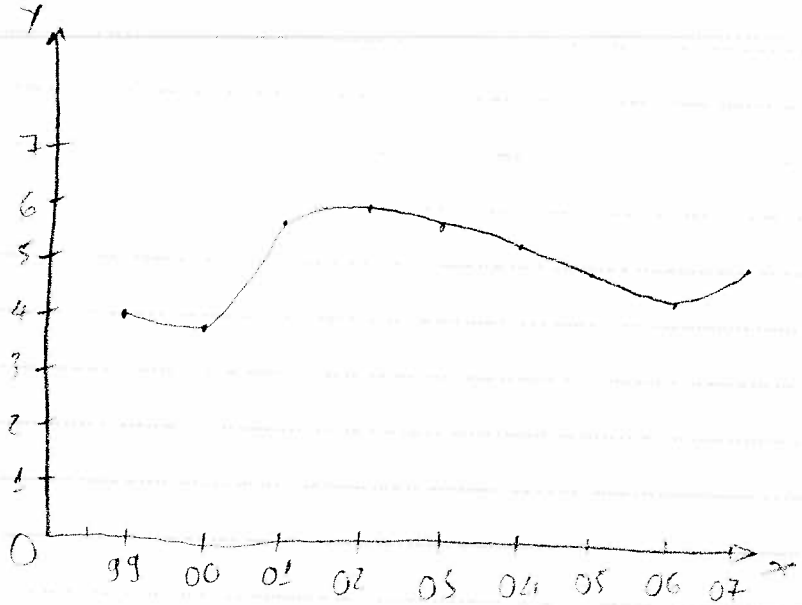


Group: Frisch

Name – Vink
– Michael Schies
– Joan

U.S unemployment rate from

x	y
L1	L2
1999	4
2000	3.9
2001	5.7
2002	6
2003	5.7
2004	5.4
2005	5.1
2006	4.4
2007	5



Cubic Reg

$$\frac{\Delta y}{\Delta x} = \frac{5-4}{8} = 0.125\%/\text{year}$$

$y = ax^3 + bx^2 + cx + d$

a = .0221380471

b = -133.116811

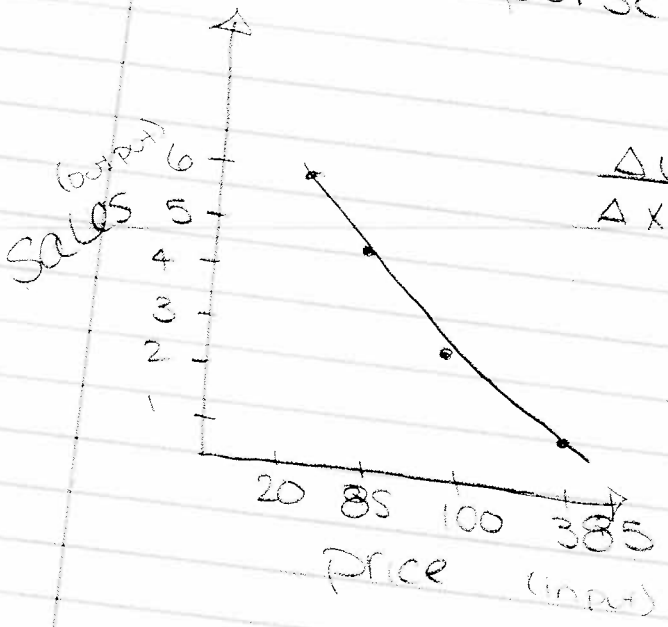
c = 26681.6054

d = -1782260339.3

$y = 0.0221380471x^3 - 133.116811x^2 + 26681.6054x - 1782260339.3$

Michelle Monto

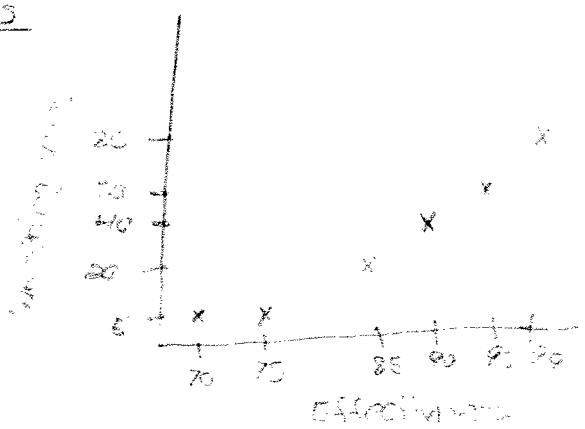
Price people would pay for a purse



$\frac{\Delta y}{\Delta x} = \frac{-5}{385} \approx -.013 \frac{\text{purse}}{\$}$

Ilse Gutierrez
Samantha Fuentes

Effectiveness %	whitener sales
70	5
75	5
85	20
90	40
95	50
99	80



$y = a \cdot b^x$

a = .00290...

b = 1.1079...

$\frac{\Delta Y}{\Delta X} = \frac{\Delta \text{sales}}{\Delta \text{effectiveness}} = \frac{75}{9} = 8.33$

Exp. Reg.

$y = .0029... * 1.108...^x$

For each 1% increase in effectiveness

8.33 increase in sales

Texas A&M Law

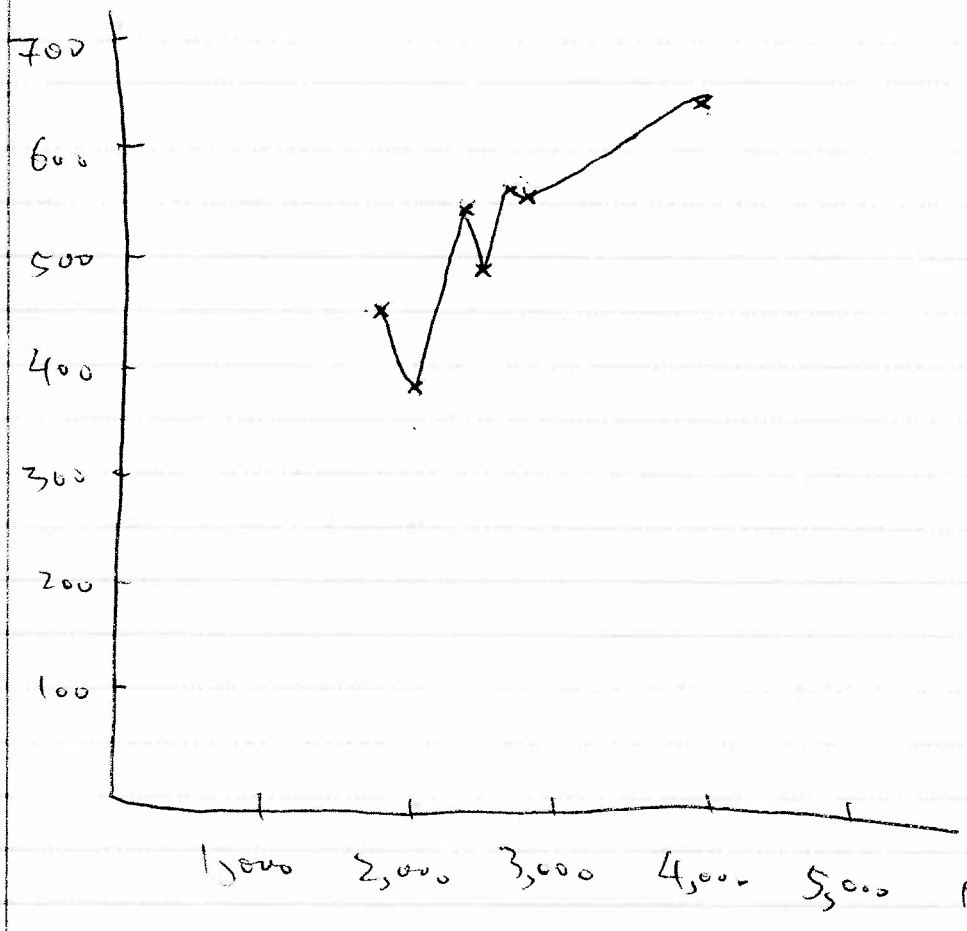
Virginia Polytechnic Institute

Pecylak

Lewis

BA is BS

Steven Nonemaker
Ryan Zhao

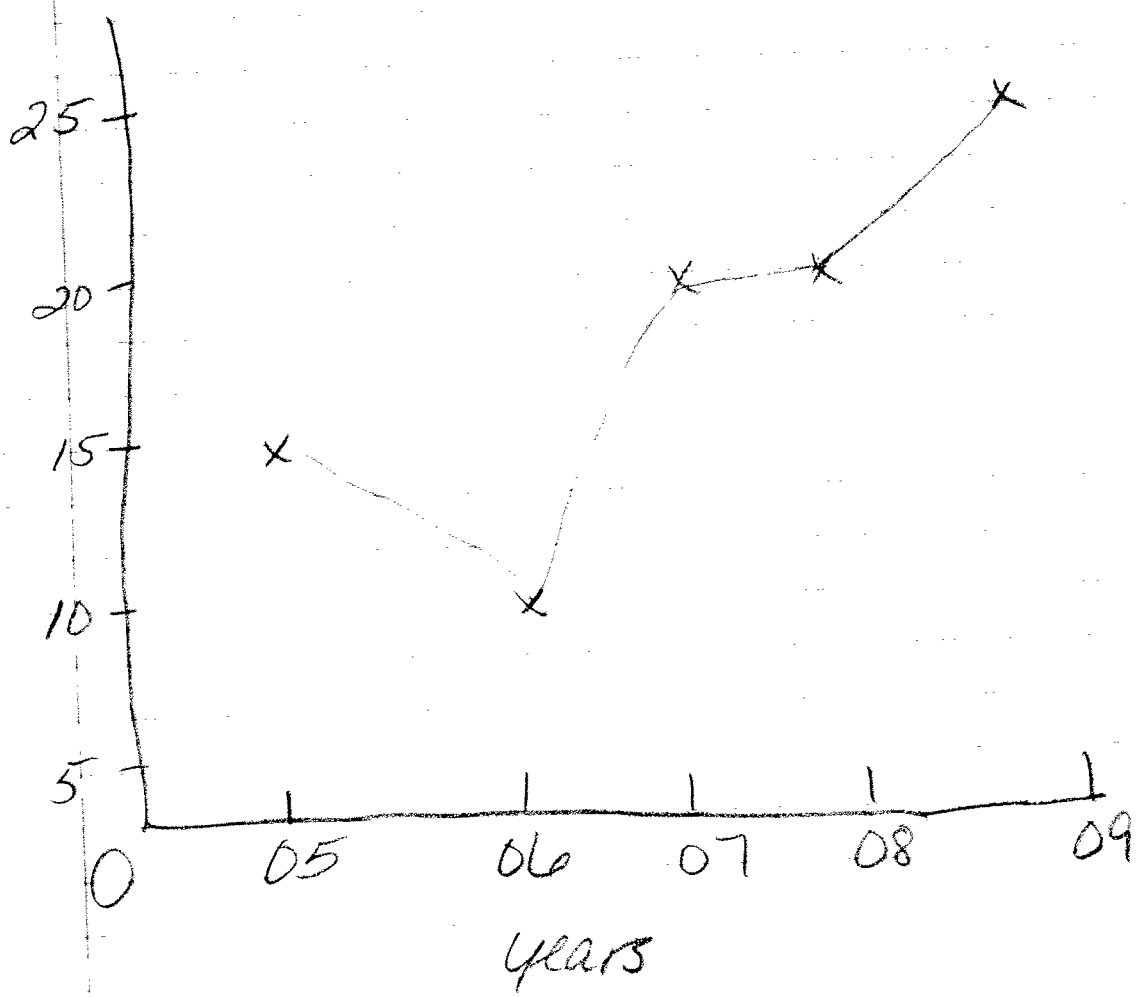


$$\frac{\Delta \text{Labor Cost}}{\Delta \text{Net sales}} = \frac{188}{2,235} = \boxed{0.084}$$

Rational / Square Root / Log Function

1/27/10 LWV.
Letrice
Wilgens
Vivien

year	expenses in thousands
2005	15
2006	10
2007	20
2008	20
2009	25



$\frac{25-15=10}{2009-2005=4}$ $\frac{\Delta y}{\Delta x} \frac{10}{4} = 2.5 = \$2,500$ expenses go up per yr.

MAT 151
01/27/10

C.I.V.A.R.C.

Ryan D'Souza (LEADER)
Stephen Mance (SPOKESMAN)
Jason Konikoff (WRITER)

y = TIME (MINUTES)
x = STUDENTS (EA)

(y) L1	(x) L2
-35	0
-30	1
-25	2
-20	6
-15	10
-10	8
-5	8
0	13

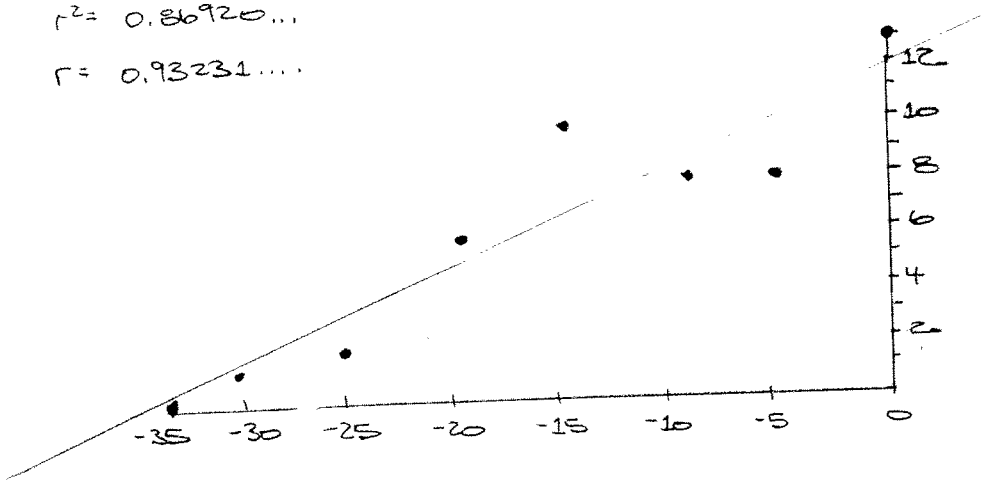
LinReg $y = ax + b$

$a = 0.35238\ldots$

$b = 12.1666\ldots$

$r^2 = 0.86920\ldots$

$r = 0.93231\ldots$

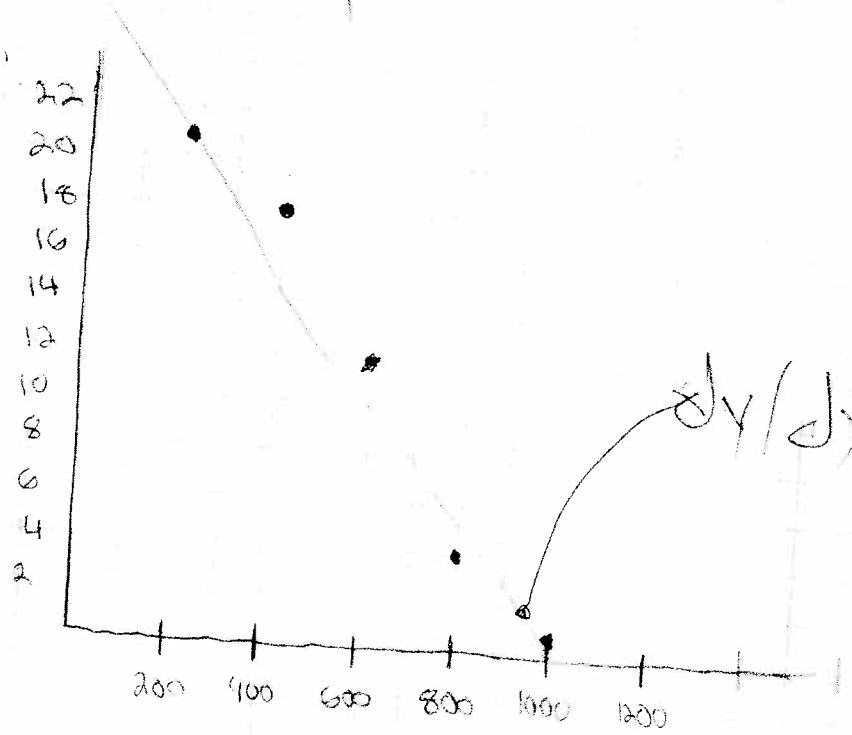


$$\frac{\Delta y}{\Delta x} = \frac{13 \text{ STUDENTS}}{35 \text{ MINUTES}} = 0.3714 \frac{\text{STUDENTS}}{\text{MINUTE}}$$

01/27/10

Pablo Espichan-Garcia
Sam Tobia

Price of TV	# of sales
200	21
400	18
600	12
800	4
1000	1
1200	0
1400	0
1600	0



$dY/dX = -.026...$

$$\frac{\Delta Y}{\Delta X} = \frac{1-21}{1000-200} = \frac{-20}{770} = -.025 \text{ TVs/Every Tiny Price}$$

Quad Reg
$y = ax^2 + bx + c$
$a = -3.39...$
$b = -.022...$
$c = 24...$
$r^2 = .996...$

Exp Reg
$y = a \cdot b^x$
$a = 69.2...$
$b = .99...$
$r^2 = .86...$
$r = -.92...$

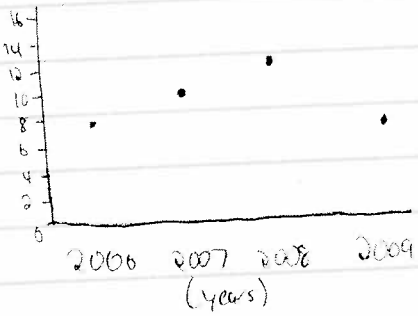
Lin Regression
$y = ax + b$
$a = -.027$
$b = 22.4$
$r^2 = .975...$
$r = -.987...$

Kristian Feher, Jalisha, Melva
Mat: 151

Grp: Save the Polar Bears

Data: NY Giant Wins: 2006-2009

year	wins
2006	8
2007	10
2008	12
2009	8



$y = -1.5x^2 + 6022.7x - 6045474.5$

$r^2 = .8363\ldots$

avg rate of change: $\frac{\Delta y}{\Delta x} = \frac{8-8}{2009-2006} = \frac{0}{3} = 0$ wins/year

TEAM. C. A. M.

MAYA KHOSRAVAR
CASANDRA LUCERO
1/25/10

GRAPHING FUNCTIONS: LINEAR, POLYNOMIAL, EXPONENTIAL

DATA:

Revolving - Credit Debt (Federal Reserve System)

Year x		Total Debt y (Billions)
1980	(0)	$58.5
1985	(5)	$ 128.9
1990	(10)	$ 234.8
1995	(15)	$ 443.2
2000	(20)	$ 663.8
2005	(25)	$ 848.3
2006	(26)	$ 898.7
2010	(30)	$ 1113.9

$40 - 0$

$$\frac{\Delta y}{\Delta x} = \frac{1055.4}{30} = 35.18 \ \$/y$$

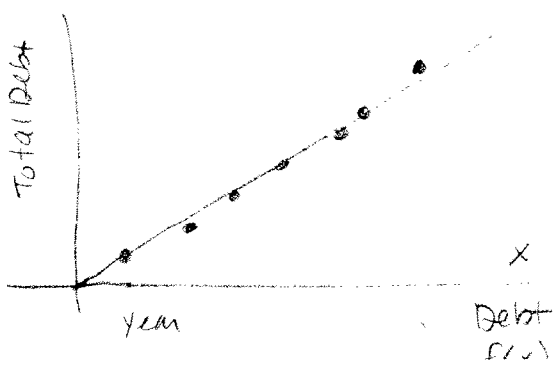
$$= 91.4 \ \$/year$$

LINEAR FUNCTION

Steps in calc.:

1) STAT EDIT (enter to insert data)
2) Y= Plot 1 (enter)
3) STAT ▷ CALC (enter to select) ∨ 8: LinReg(a+bx)
4) Y= VARS 5: statistics ▷▷ EQ 1: Reg EQ

sketch of graph:



$y = a + bx$
$a = -40.89624632$
$b = 36.00961443$

$y = -40.89... + 36.00...x$