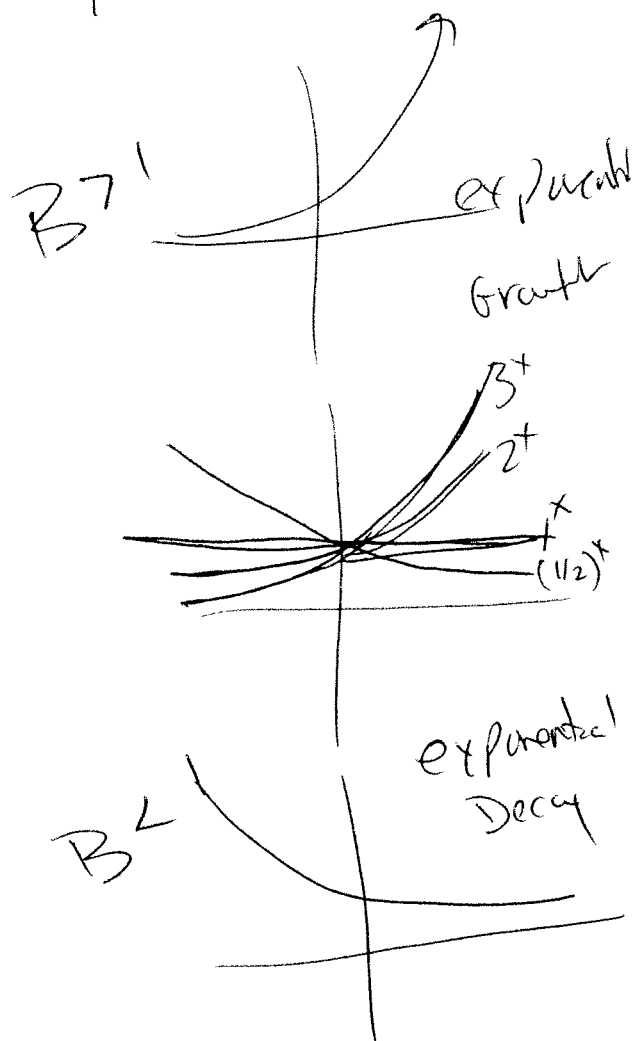


# Exponential Functions

$$f(x) = B^x$$

↑ exponent  
↑ base

$$1 = 3^x$$



#8

$$y = \frac{-3x+12}{x^2-5x+4}$$

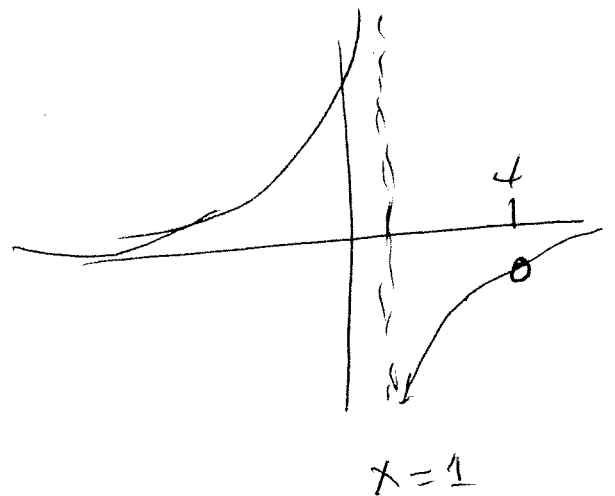
$$y = \frac{-3(\cancel{x-4})}{(\cancel{x-4})(x-1)}$$

$z_N: 4$   
 $z_D: 4$

$$\left( \frac{-3}{x-1} \right)$$

$z_N = \text{NONE}$   
 $z_D = 1 \quad \text{VA.}$   
 $\text{HA: } y = 0$

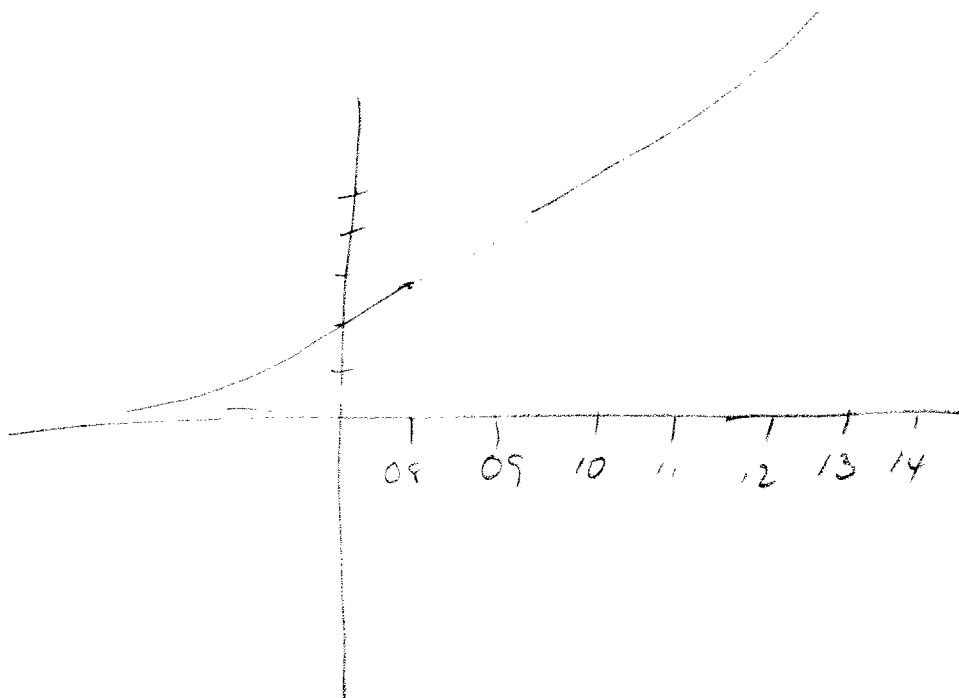
$$y = (-3x+12)/(x^2-5x+4)$$



<p>GROUP NAME: <u>Montana</u></p> <p>Logo:</p>	<p>Student Names (First and Last)</p> <p>Speaker/Presenter: <u>Simon Guman</u></p>
<p>Date: _____</p> <p>Topics:</p>	<p>Writer/Prep: <u>Simon Guman</u></p> <p>QC/Leader: <u>Darshit Jariwala</u></p>

Instructions: In 2009 galaxy phones sold 3.8 million

09	3.8
10	4.6
11	5.5
08	2.7



Lin Reg

$$y = a * b^{1x}$$

$$a = .44065...$$

$$b = 1.2618...$$

in the year 2014

the approx. units sold will be 11.43 million

<p>GROUP NAME:</p> <p>Logo:</p>	<p>Student Names (First and Last)</p> <p>Speaker/Presenter: <u>Rex Liang</u></p>
<p>Date: <u>9/25/2013</u></p> <p>Topics:</p>	<p>Writer/Prep: <u>Mengni Guo</u></p> <p>QC/Leader: <u>Mengni Guo</u></p>

Instructions:

The years of the school starting salary of graduation

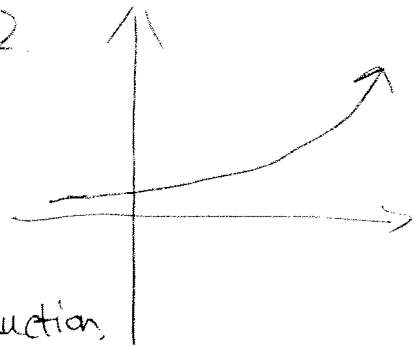
year	PPL
1	20,000
3	50,000
5	65,000
7	80,000
9	90,000

ZxPreg:

$$y = a \times b^x$$

$$a = 22720.24018$$

$$b = 1.189945992$$



15 years later has 308547 PPL graduation.

GROUP NAME: I L I M

Logo:



Date: 09/25/2013

Topics: Exponential Functions.

Student Names (First and Last)

Speaker/Presenter: Jake P. Peeble

Writer/Prep: Hiral Desai

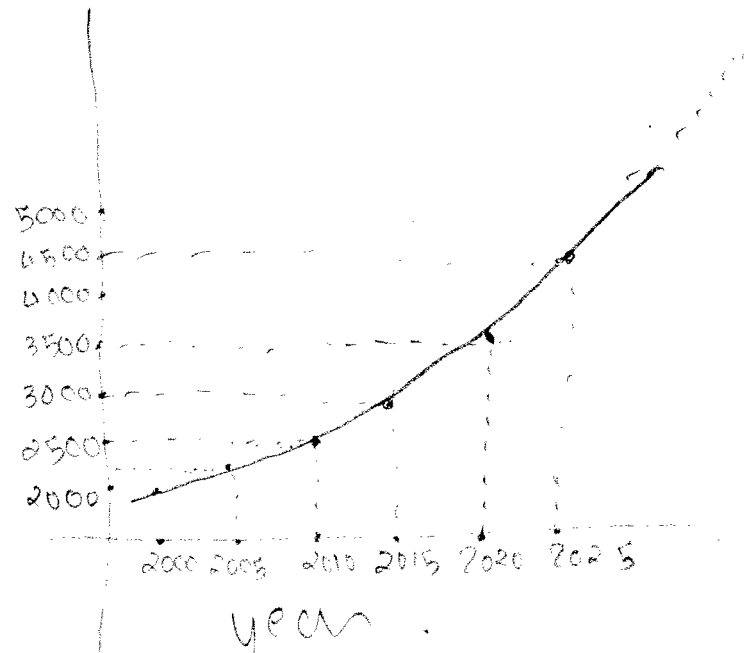
QC/Leader: Kevin Velasquez

Instructions:

- x-axis - years  
 - y-axis - living expense per month/person  
 (conclusion)

x	y
2000	2000
2005	2200
2010	2500
2015	3000
2020	3500
2025	4500

living expense



$x = 2045$

$y = 8066$

In 2045, - the living expense for one person will be 8066/month.

GROUP NAME: DA ENGINEERS

Logo:

Date: 9-25-13

Topics: EXPONENTIAL REGRESSION.

Student Names (First and Last)

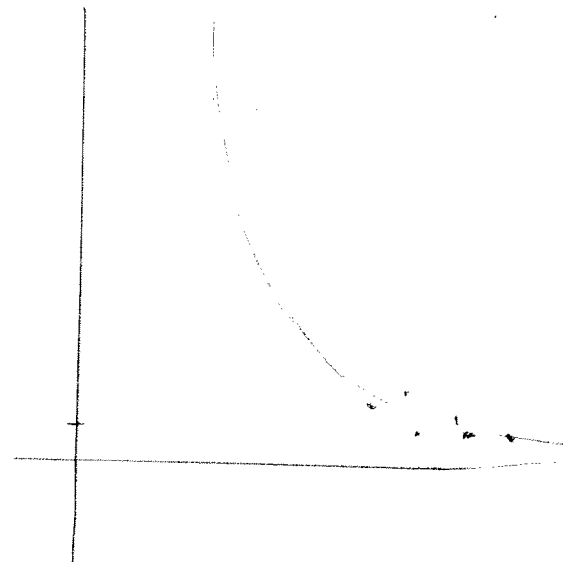
Speaker/Presenter: Harrison Sanders

Writer/Prep: Vinne Amhad

QC/Leader: Joe Karway

Instructions:

Year	Unit Transistors
1960	100
1970	97
1980	81
1990	62
2000	51
2010	25



2005 there will be 37.501 Transistors made

2014 there will be 29.63 Transistors made

GROUP NAME:

Logo:

Date: 4/25/13

Topics:

Student Names (First and Last)

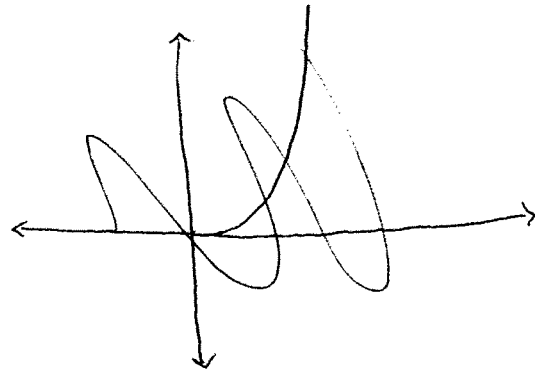
Speaker/Presenter: Nicole Bonelli

Writer/Prep: Avik Chatterjee

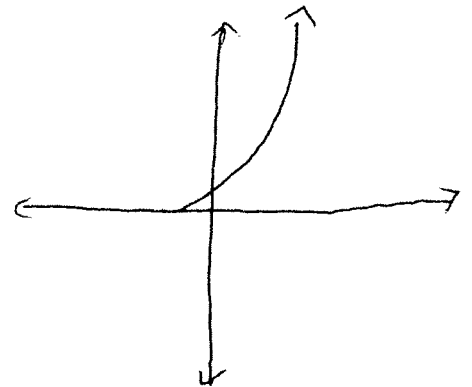
QC/Leader: Jan Sabine

Instructions:

$L_1$	$L_2$
2013	40
2027	76
<del>2046</del>	
2046	113
2071	200



~~y = a \* b^x~~



Stat → Calc

In

$$y = a * b^x$$

$$a = 1.96...$$

$$b = 1.08...$$

In 2080, the avg salary will be

135.65 thousand \$.

GROUP NAME: 10 Math

Student Names (First and Last)

Logo: 

Speaker/Presenter: Onur Turker

Date: 9/25/2013

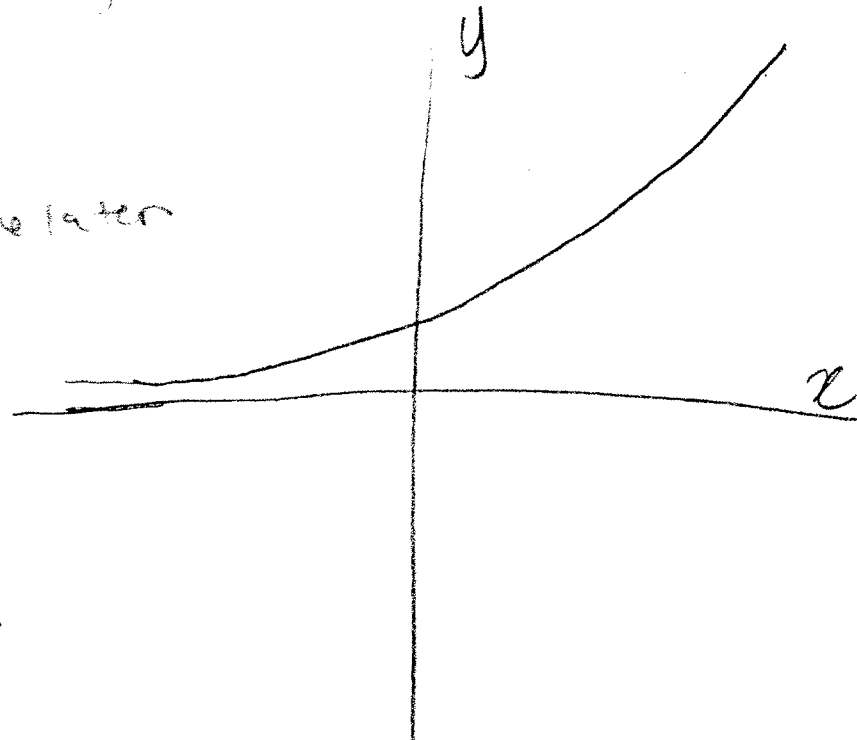
Writer/Prep: Kerline Simon

Topics: CD sales

QC/Leader: Sheron Isoe

Instructions: Drake's CD

Year	$t_1$	$t_2$	Sales in million
2001	1	3	
2003	3	4	
2005	5	8	
2009	9	11	- mark me later
2011	11	12	
2018	18	37.45	
2020	20	49.76	



Growth

Eq  $y = a \cdot b^{x-h} + k$   
 $y = 2.90 \cdot 1.15^{x-1}$

Drake's new CD (Nothing was the same)  
 2013 will sell = 18.40

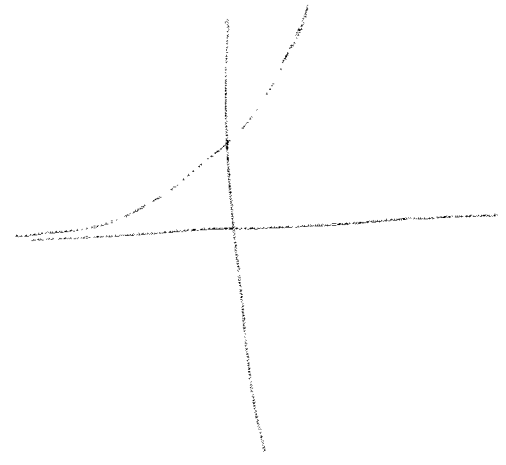


<p><b>GROUP NAME:</b></p> <p>Logo: <u>BC</u></p>	<p>Student Names (First and Last)</p> <p>Speaker/Presenter: <u>Stefan Kaplan</u></p>
<p>Date: <u>9/25</u></p> <p>Topics:</p>	<p>Writer/Prep: <u>Yan Sinclair</u></p> <p>QC/Leader: <u>Danyan Zhou</u></p>

Instructions: In ~~2007~~, 2007, 75.55 million will have position key.

(Cars) position key


2000	2007
L1	L2 (millions)
1	3
2	4
3	8
9	11



STAT-CALC  
 OPTIC. EXP REGRESSION  
 EDITOR - FIT  
 $y = a \cdot b^{x-h} + k$   
 $a = 2.6678 \dots$   
 $b = 1.1838 \dots$   
 [MANAGE] [STAT] (CARS)  
 EQ - OPT 1 - GRAPH

[2nd] [TABLE]  
 [2007]

In 2007, 801.96 million will have position key.

<p>GROUP NAME:</p> <p>Logo: </p>	<p>Student Names (First and Last)</p> <p>Speaker/Presenter: <u>Natalie Castillo</u></p>
<p>Date: <u>9/25/3</u></p> <p>Topics: <u>DIGITAL CAMERAS</u></p>	<p>Writer/Prep: <u>LAUREN DIBO</u></p> <p>QC/Leader: _____</p>

Instructions:

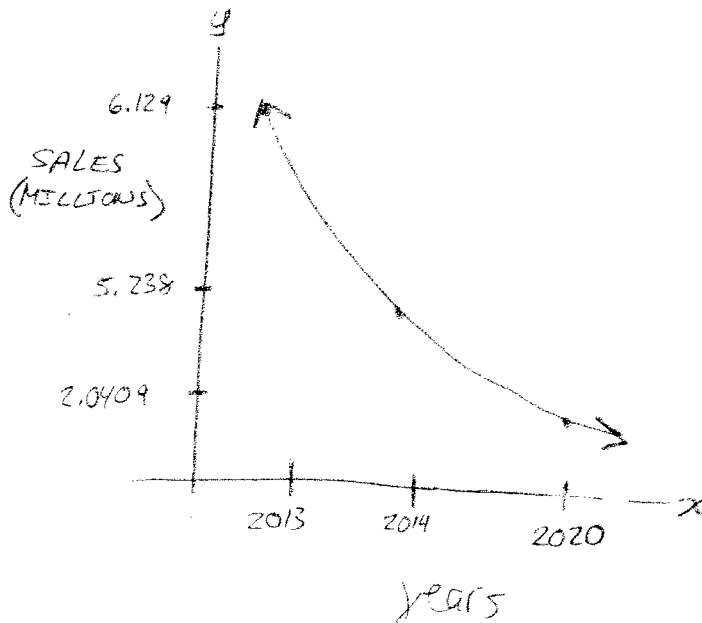
EXPONENTIAL DECAY

YEAR (x)	SALES IN MILLIONS (y)
13	6.129
14	5.238
20	2.0409

$y = a \cdot b^x$

$a = 97.23728066$

$b = 0.8546255507$

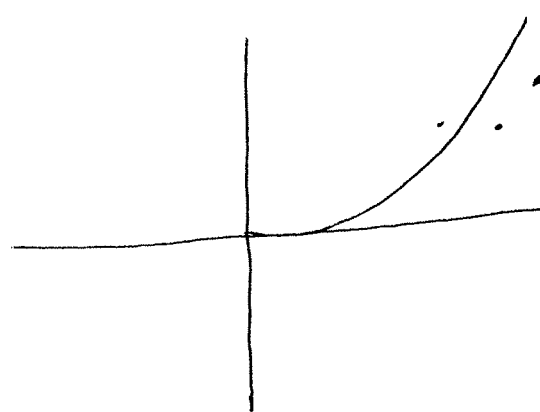


IN 2020, DIGITAL CAMERA SALES TOTLL DECLINE TO 2.0409 MILLION DOLLARS.

<p>GROUP NAME:</p> <p>Logo:</p>	<p>Student Names (First and Last)</p> <p>Speaker/Presenter: <u>Tatiana</u></p>
<p>Date: _____</p> <p>Topics:</p>	<p>Writer/Prep: <u>Trey</u></p> <p>QC/Leader: <u>Dominique</u></p>

Instructions:

12	36
10	20
9	9



guess

2<sup>nd</sup> table

(14) 2014

exponential growth

80.399 million iPhones will be sold

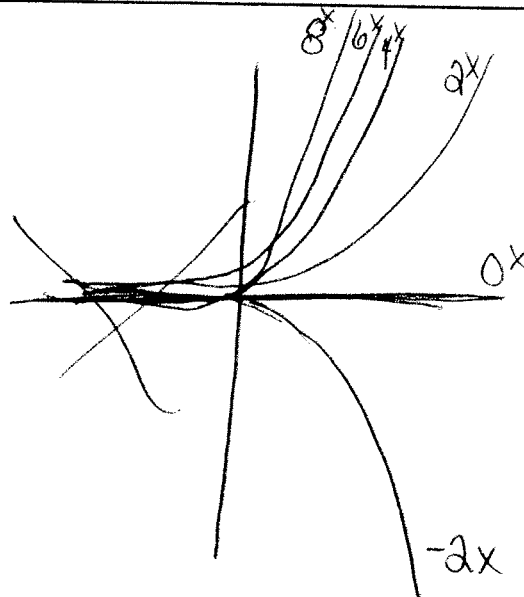
14

GROUP NAME: <u>Rachel Dyer</u> <u>Alex, Kausalya, Jena</u> Logo: Date: <u>9/25/13</u> Topics:	Student Names (First and Last) Speaker/Presenter: _____ Writer/Prep: _____ QC/Leader: _____
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Instructions:

$$y = 4^x$$

- $6^x$
- $8^x$
- $10^x$
- $2^x$
- $0^x$
- $-2^x$



as the leading coefficient gets bigger there is exponential growth  
 as it goes down there is exponential decay  
 graph

Data year	million cars sold
20	1000
30	2000
40	3000

