151m
d16

Equation of Tangent Line

of $y = \sqrt{x^2+80}$ at $x = 1$

$$y = (x^2+80)^{1/2}$$

$$y' = \frac{1}{2}(x^2+80)^{-1/2} \cdot (2x)$$

chain Rule:

$$y'(1) = \frac{1}{2}(81)^{-1/2}(2) = \frac{1}{9}$$

$(1, 9)$ $m = 1/9$

$$y - 9 = 1/9\,(x-1)$$

$$y = 1/9\,(x-1) + 9$$

Position $s(t)$ time t

Velocity $= v(t) = s'(t)$

Speed $= |v(t)|$

Always $\oplus$

Acceleration $= v'(t) = s''(t)$

$\frac{\Delta v}{\Delta t} \approx v'(t)$

$\frac{d}{dx} \; 8 \ln(x^2)$

$8 \cdot \frac{1}{x^2} \cdot 2x = \frac{16}{x}$

$$\frac{d}{dx}\left(\sqrt{xy} - 9y^2\right) = 0$$

$$\frac{d}{dx}(xy)^{1/2} - 9y^2 = 0$$

$$\frac{1}{2}(xy)^{-1/2} \cdot \frac{d}{dx}(xy) - 18y\left(\frac{dy}{dx}\right) = 0$$

$$\frac{1}{2}(xy)^{-1/2}\left[x\frac{dy}{dx} + y\right] - 18y\frac{dy}{dx} = 0$$

$$\frac{1}{2}(xy)^{-1/2} \times \frac{dy}{dx} - \frac{1}{2}(xy)^{-1/2}y - 18y\frac{dy}{dx} = 0$$

$$\frac{dy}{dx}\left[\frac{1}{2}(xy)^{-1/2} - 18y\right] = \frac{1}{2}(xy)^{-1/2}y$$

$$\frac{dy}{dx} = \frac{\frac{1}{2}(xy)^{-1/2}y}{\left[\frac{1}{2}(xy)^{-1/2} - 18y\right]}$$

$$\frac{d}{dx}y^3 = 3y^2 \cdot \frac{dy}{dx}$$

$$y = \sinh^2(6x)$$

$$\left(\sinh(6x)\right)^2$$

$$y' = 2\left(\sinh(6x)\right)^1 \cdot \frac{d}{dx}\sinh(6x)$$

$$= 2\sinh(6x)\cosh\underbrace{(6x)}_{\text{chain Rule Again!}} \cdot 6$$

Mean Value Theorem

Average Rate = Instant.

$$\frac{f(b)-f(a)}{b-a} = f'(c)$$

$$f(x) = \sin x + 95 \quad \text{on} \quad [0, \pi/2]$$

$$\frac{f(\pi/2)-f(0)}{\pi/2-0} = \frac{96-95}{\pi/2} = \frac{2}{\pi} = \cos(c)$$

$$c = \cos^{-1}\left(\frac{2}{\pi}\right)$$

$X^3 + 4X^2 - 3X - 11 = 0$

$1 \to X$

$X - Y_1/\text{nderiv}(Y_1, X, X) \to X$

.62500..

.3312..

2380..

15.49

$-4.68857..$

$7X^{-5/2} - X^{-3/2} = 0$

$X^{-.5/2}(7 - X^{*}) = .0$

Smallo $4X^2 - 2X$

$\frac{1}{X^{5/2}} \neq 0 \quad (7 - X) = 0$

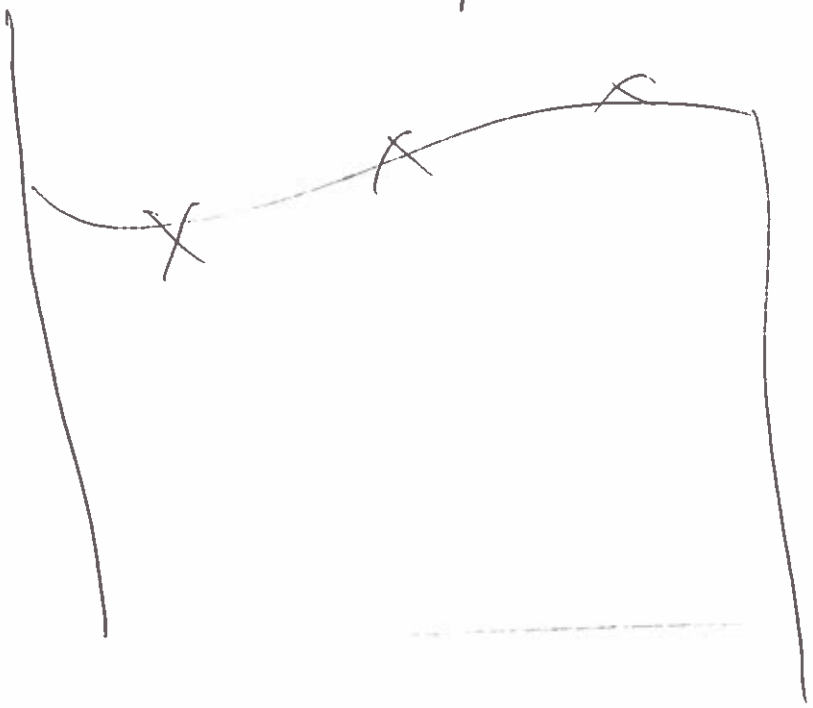
$X = 7$

day 10 #2.

day 12/13 #9
#10

day 14 #2

Area under a curve



Calc 7: $\int f(x)dx$

Lower: 1

Upper: 7

$\int f(x)dx = 220.52$

GROUP NAME: BEST FRIENDS

Date:_____

Student Names (First and Last)

Speaker/Presenter: VINNIE

Writer/Prep: LAUREN

Leader/Collaborator:_____

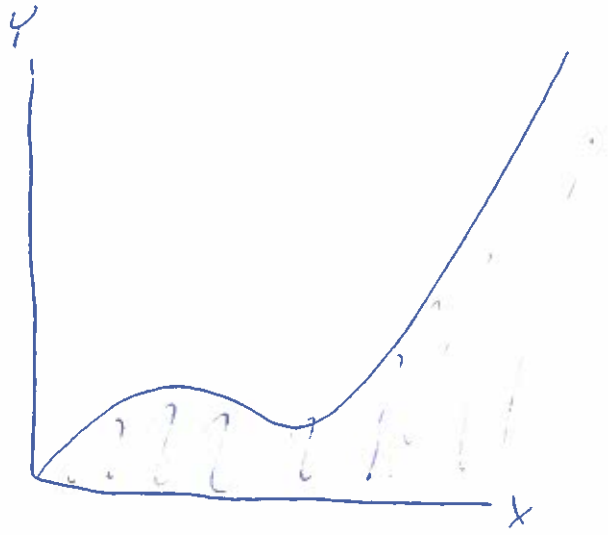
Independant Variable (x-axis):_____

Dependant Variable (y-axis): _____

Conclusion (in words):

Supporting Work:

YEAR	SALES
2009	9
2010	13
2011	15
2012	19
2013	64



$\int f(x)\,dx = 79.99869$

GROUP NAME: Trates

Date: 02/21/2017

Student Names (First and Last)

Speaker/Presenter: Shanon Isoe

Writer/Prep: Onur Turkan

Leader/Collaborator:

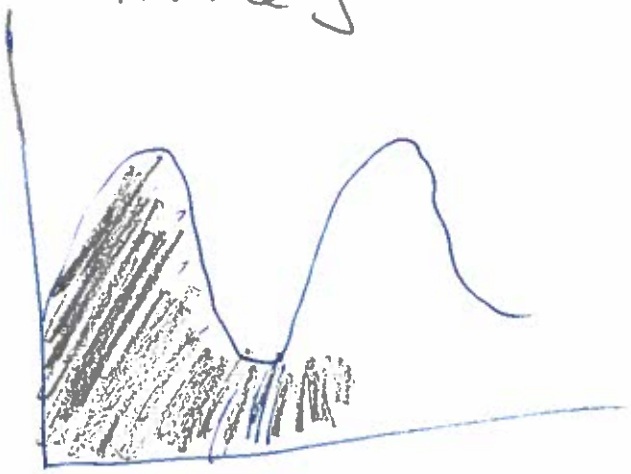
Independant Variable (x-axis): years

Dependant Variable (y-axis): money sales

Conclusion (in words): - In shabi grassPinkcars cars cost $ 28,797 billion

Supporting Work:

Sin Reg. 16.17...(sin(.80x)+.67...
+43.770...



Lower - 1

Upper - 7

x	y
1	50
5	46
8	29
11	20
10	21

GROUP NAME: Illuminatti

Date: 3/31

Student Names (First and Last)

Speaker/Presenter: Ryan Piotrowski

Writer/Prep: Bishop Brar

Leader/Collaborator: Danyan Zhou

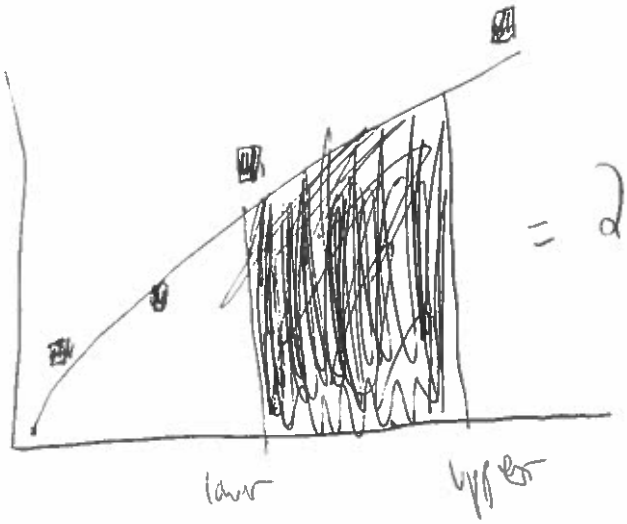
Independant Variable (x-axis): years

Dependant Variable (y-axis): gas prices

Conclusion (in words): [illegible] costs for 1 gallon per year is $20.90

Supporting Work:

Quadratic regression



= 20.902465

lower = x = 164.5
y = 2.29

upper = x = 112.2
y = 3.09

GROUP NAME: Cha- Ching

Date: 3/31/14

Student Names (First and Last)

Speaker/Presenter: Trey Murrill

Writer/Prep: Sheila Mae Gan

Leader/Collaborator: Tatiana Calderon

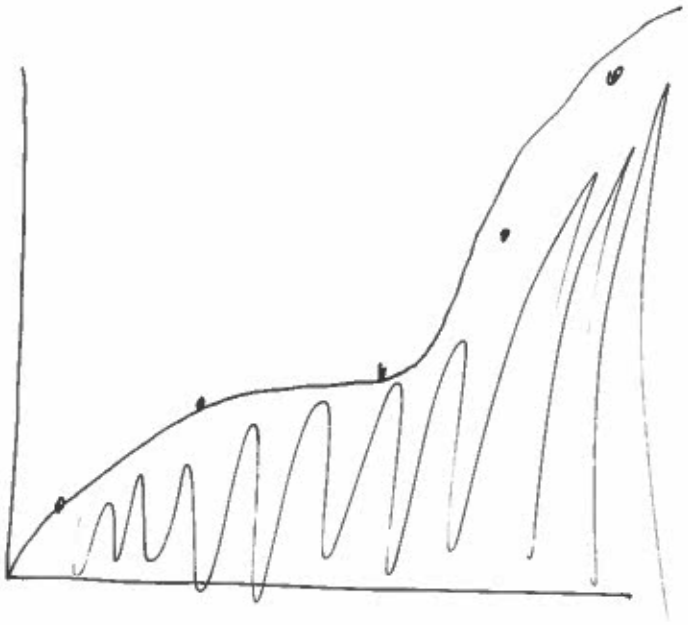
Independant Variable (x-axis): ~~Years~~

Dependant Variable (y-axis): Revenue

Conclusion (in words):

Supporting Work:

L1	L2
9	17
10	19
11	20
12	25
13	33



GROUP NAME: Functional Paradigm

Date: 03/31/14

Student Names (First and Last)

Speaker/Presenter: Nader Shehoda

Writer/Prep: Karol Zarski

Leader/Collaborator:

Independant Variable (x-axis): time

Dependant Variable (y-axis): memory used

Conclusion (in words): Since the computer was in use (4h) then memory that was used was 7785.6673 MB.

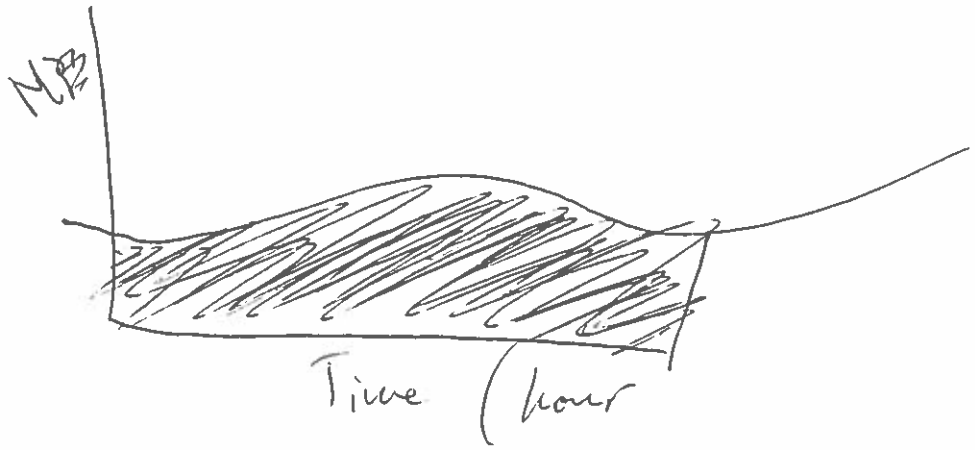
Supporting Work:

Quardic

lower = .001

higher = 4

$\int f(x)\,dx = 7785.6673$ MB



GROUP NAME: polar Beaz

Date:_____

Student Names (First and Last)

Speaker/Presenter: _____

Writer/Prep: _____

Leader/Collaborator: _____

Independant Variable (x-axis):_____

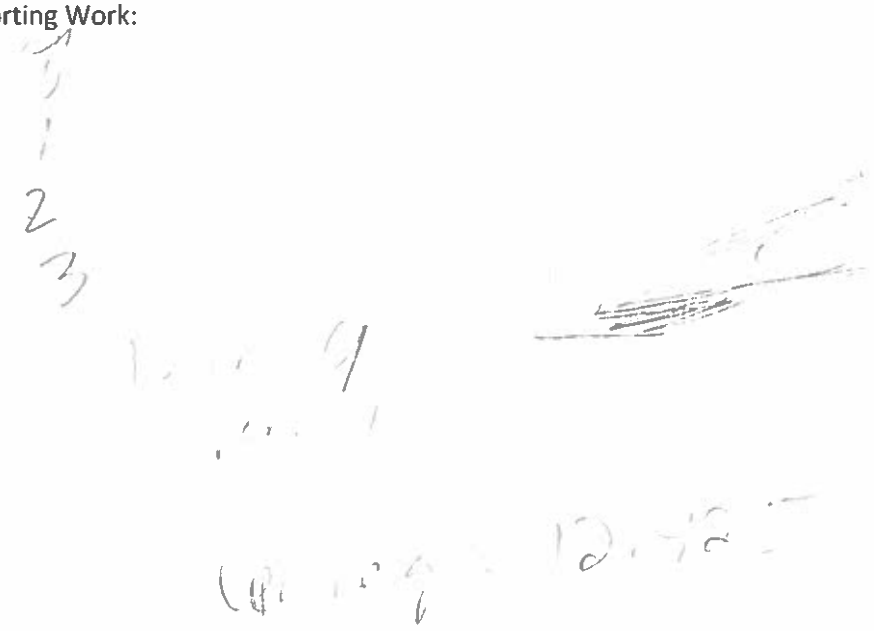
Dependant Variable (y-axis): _____

Conclusion (in words):

people died

12.415

Supporting Work:



GROUP NAME: We mean Business

Date: 3/31/14

Student Names (First and Last)

Speaker/Presenter: Christina Trujillo

Writer/Prep: Yasmin Silverio

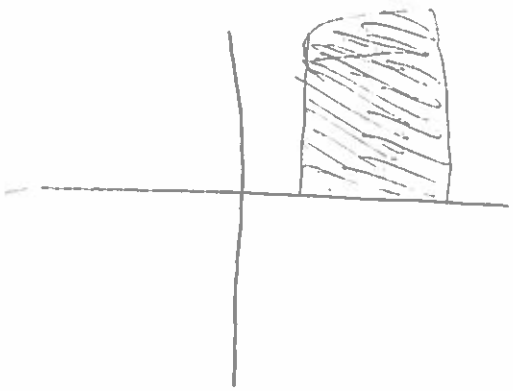
Leader/Collaborator:

Independant Variable (x-axis): Years

Dependant Variable (y-axis): Rates

Conclusion (in words):

Supporting Work:



X Years	Y Rates
[illegible]	[illegible]
[illegible]	[illegible]
2010	[illegible]
2011	[illegible]
2012	[illegible]

GROUP NAME: Money Makers

Date: 03/31/14

Student Names (First and Last)

Speaker/Presenter: Bryan S.

Writer/Prep: Edna C.

Leader/Collaborator: [illegible]

Independant Variable (x-axis): time (years)

Dependant Variable (y-axis): Crime rate (percentage)

Conclusion (in words):

Link

Supporting Work: