

Months	\$
1	2000
2	1500
3	3000
4	3300
5	3500

Max : $X = 4.86\dots$, $Y = 7163.90\dots$

Min : $X = 1.37\dots$, $Y = 3529.86\dots$

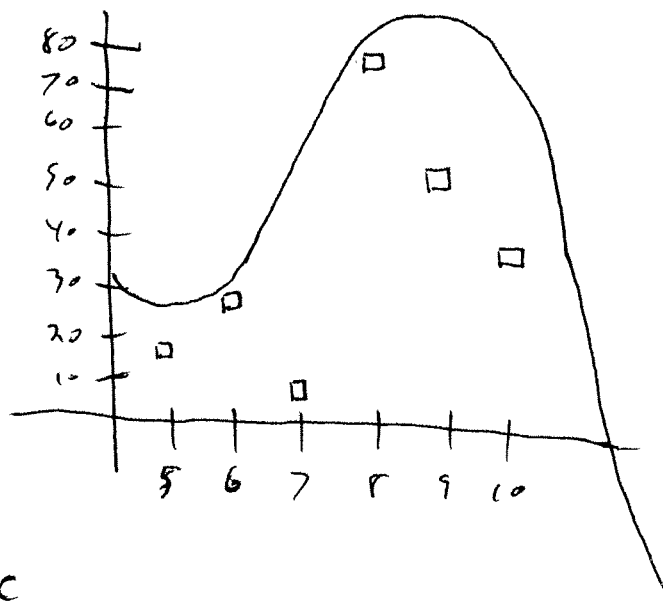
Cubic Reg.: $Y_1 = (-174.9\dots)X^{13} + 1589.28X^{12} + (-3735.71\dots)X + 4259\dots$

Exp. Reg.: $Y_2 = 1428.28\dots * 1.21\dots^{1X}$

$Y_3 = Y_1 + Y_2$

D G K

X	Y
5	15
6	28
7	4
8	75
9	50
10	35



$y_1 = \text{quadratic}$

$y_2 = \text{cubic}$

$y_3 = y_1 + y_2$

Double Helix

Constraint Equation

Case

$y_1 =$ quartic equation

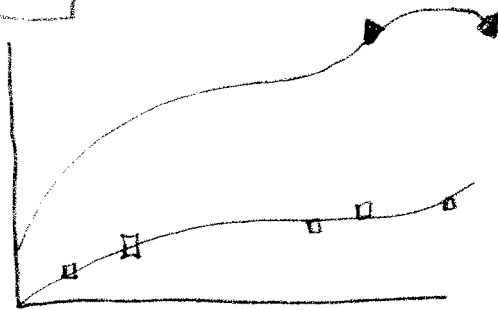
$y_2 =$ cubic equation

$$y_3 = y_1 + y_2$$

Data

4	170
200	120
250	90
210	90
260	140
280	160

Zoom Fit



Maximum

$$x = 282.24 \dots$$

Double Helix

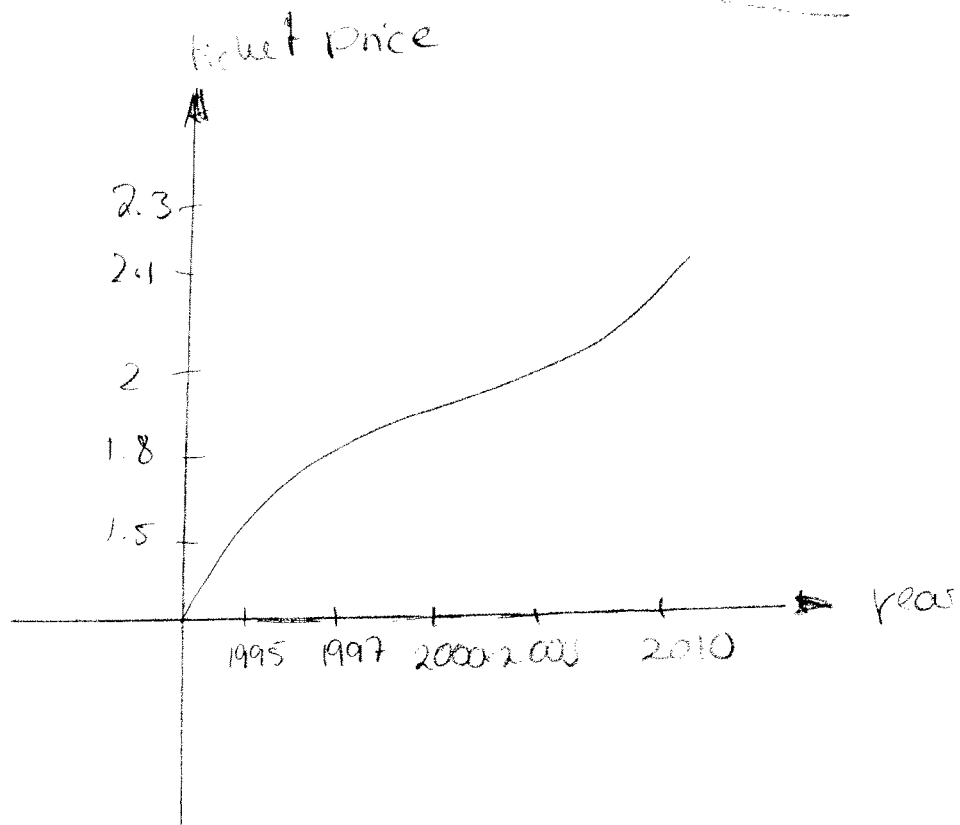
Newton's Method

Calc $\Rightarrow x - y_1 / \text{ndDeriv}(y_1, x, x)$
Enter

ans $\rightarrow x$

$\approx 303.332\dots$

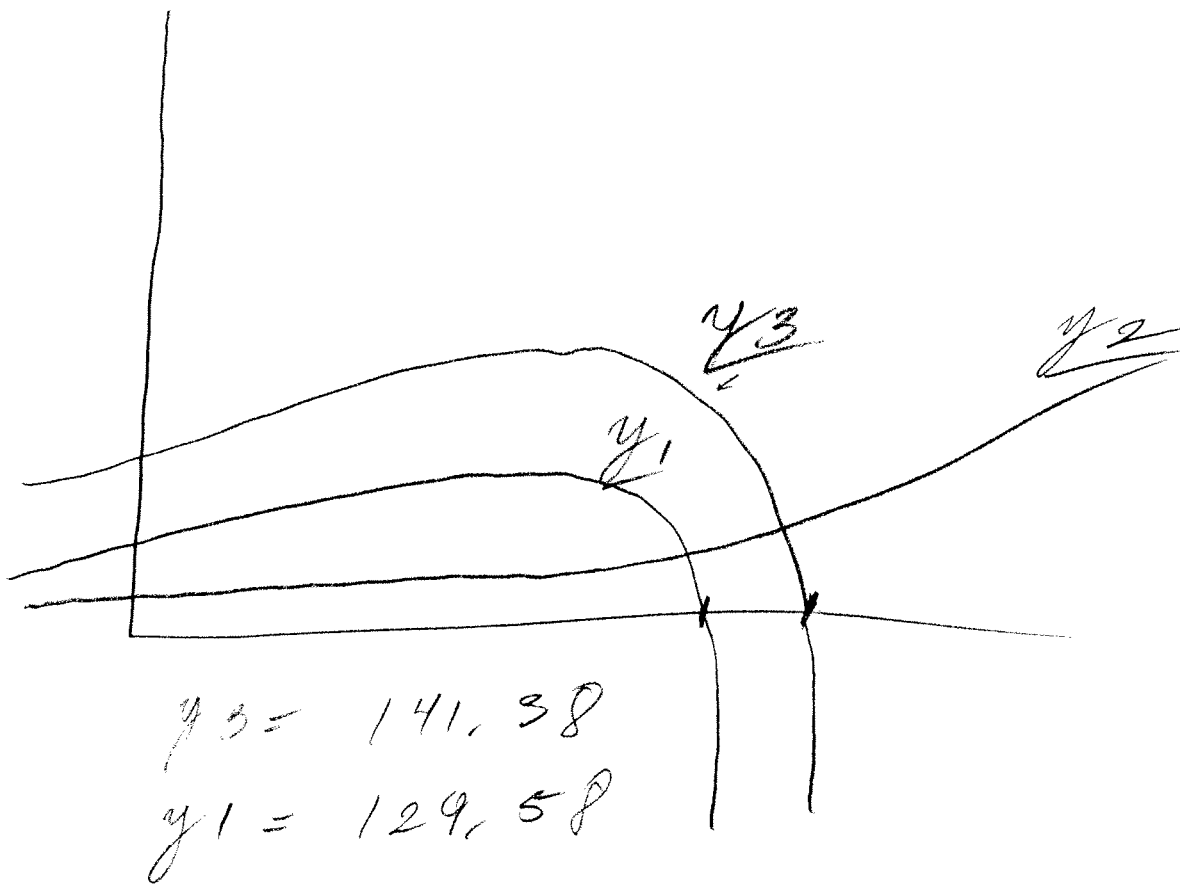
DP - deutsche Produktion



No max/min

$$\begin{aligned}x_{\min} &= 1993.5 & y_{\min} &= 2.78\dots \\x_{\max} &= 2011.5 & y_{\max} &= 4.9478\dots\end{aligned}$$

Investment Bankers



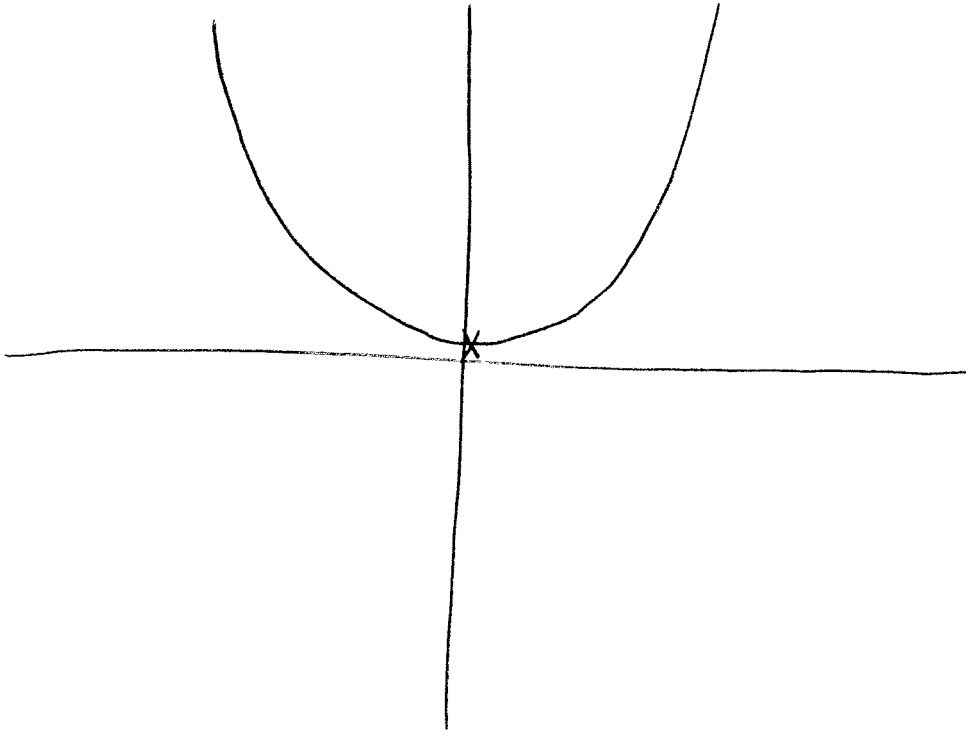
$$y_1 = -9.75 \dots x^3 + .015 \dots x^2 + 9.38$$

$$y_2 = 7.47 \dots * 1,006 \dots$$

$$y_3 = y_1 + y_2$$

IT

Patrick Wells
GRANSON Rogers



$$(\min) X = (.24429358, 7129325.7)$$

$$\text{Zero} = (9.7305145, -4E-6)$$

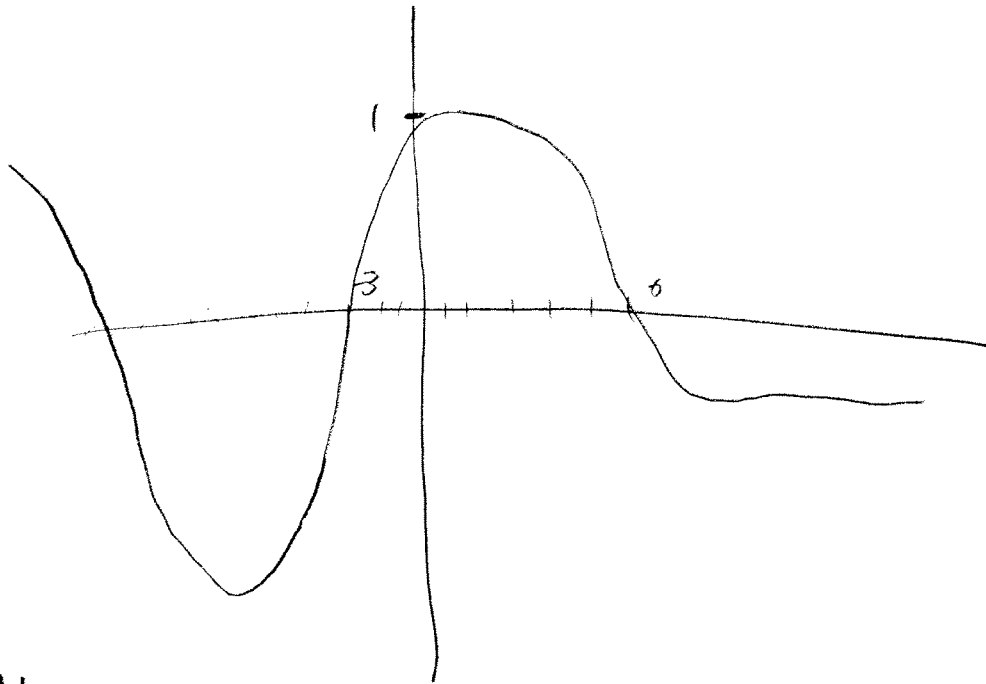
MAT Fishers

$$y_1 = \text{Cub reg}$$

$$y_2 = \text{Exp. reg}$$


$$y_3 = y_1 + y_2$$

<u>x</u>	<u>y</u>
3.5	.08
3.35	.085
3.2	.09
3	.092
2.95	.097



Minimum

$$x = 2.955$$

M.  Julian Ward Hiro Tomioka

PURPLE PARROTS

$y = y_i$ cubic regression

$$x = y_i / n \text{ Deriv}(y_i, x, x) \rightarrow x$$

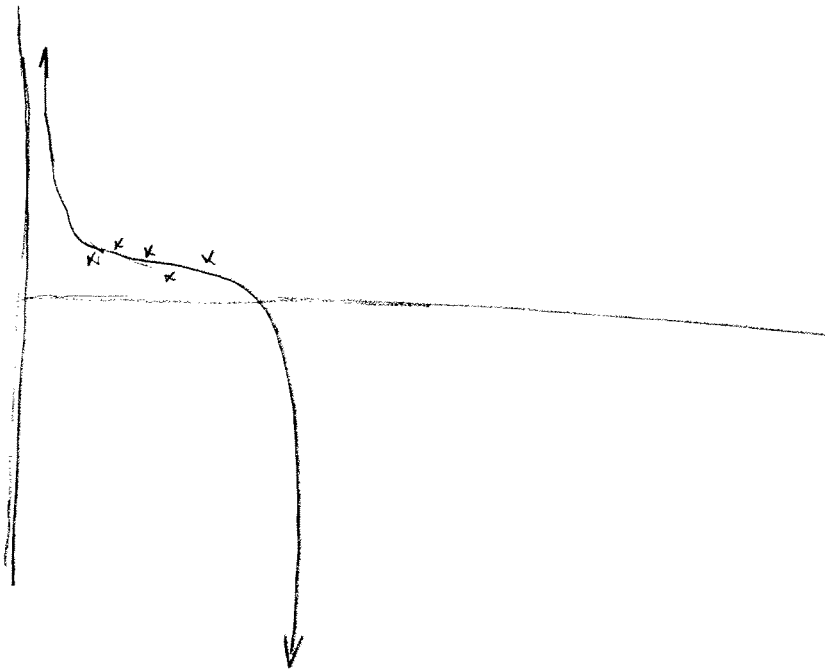
$$x = 2012.205836$$

PURPLE PARROTS

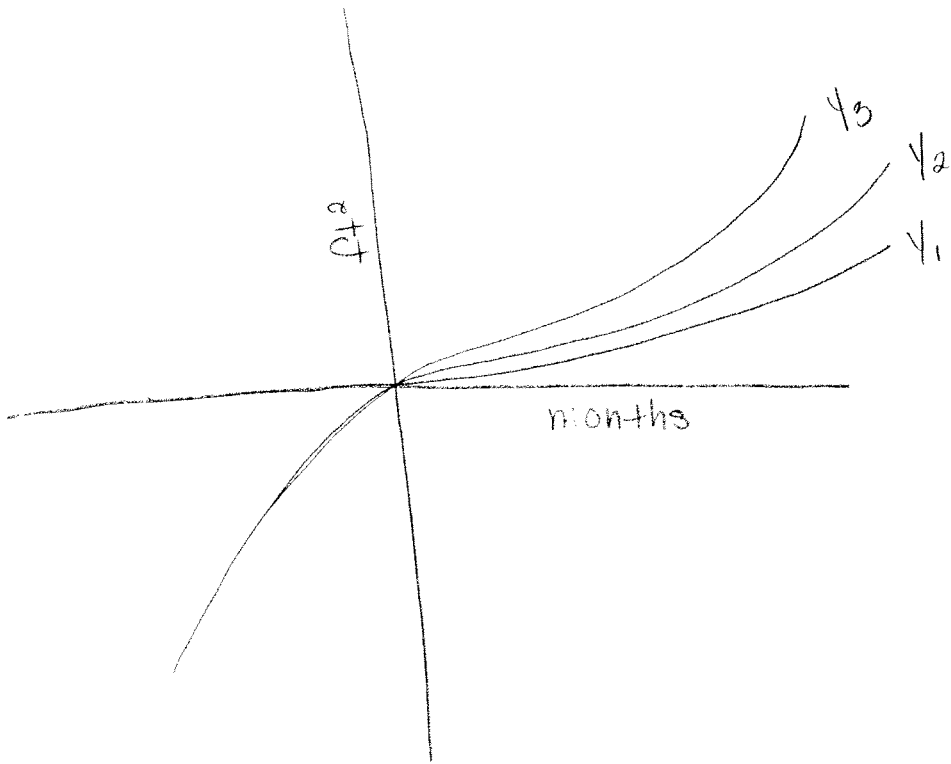
$y_1 =$ cubic regression

$y_2 =$ exponential regression

$$y_3 = y_1 + y_2$$



XMAS



L_1	L_2
250ft ²	5 months
490ft ²	7.8 months
1000ft ²	9 months
1300ft ²	11 months
1629ft ²	12.7 months

No max/min.

max

$$y = 2428.6745...$$

$$y = 50.0...$$

min:

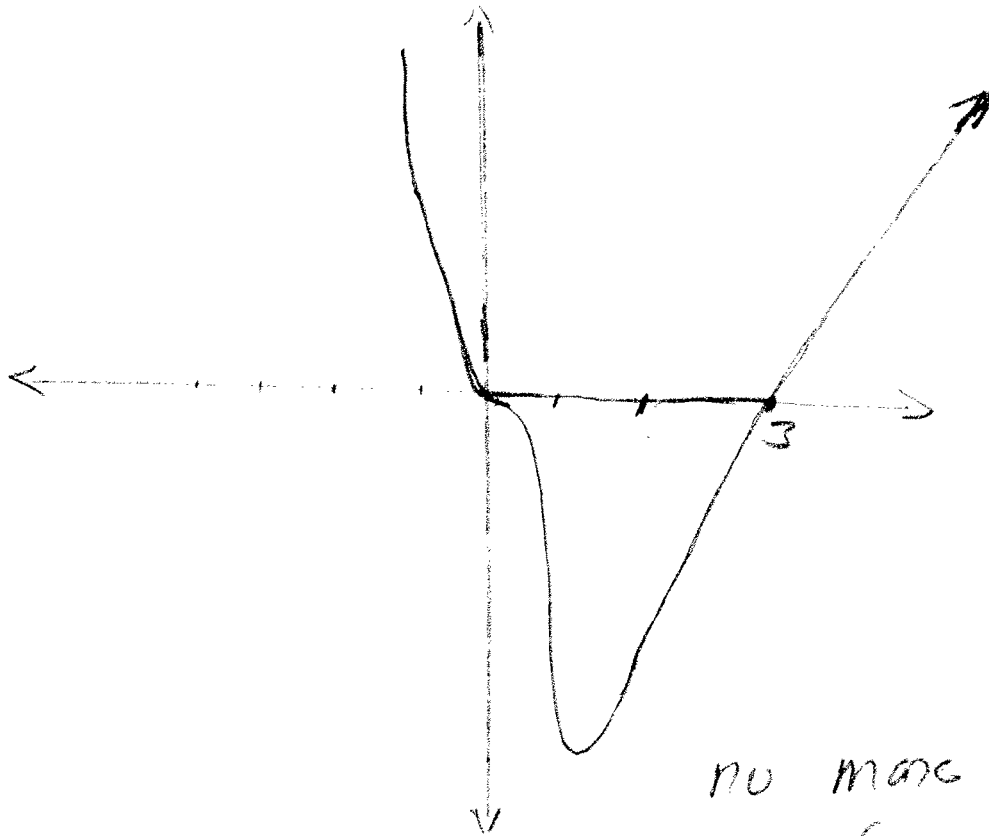
$$x = -260.7594...$$

$$y = -23.039...$$

Biochemists

Abraham Sherman
Timothy Lukowicz

03/07/11



data

x	y
0.2	316
0.4	329
0.6	350
0.8	372
1	381

no max
Min = (37.08, -6.903550)