Stats.Blue

Polynomial Regression Calculator

Variable Names (optional):

Data goes here (enter numbers in columns):

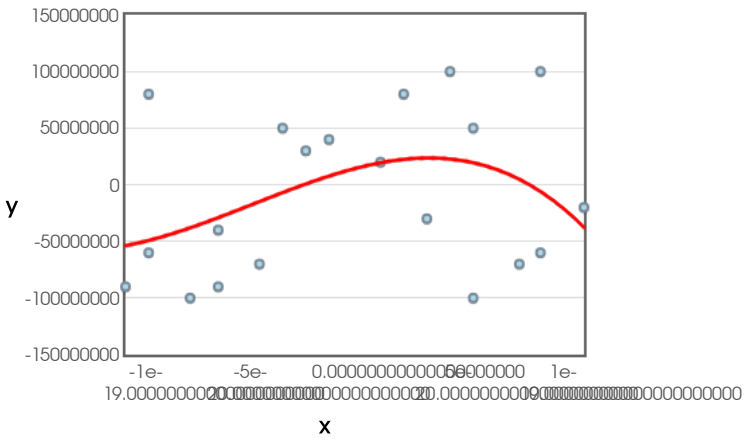
Explanatory (x)	Response (y)
-0.000000000000000000045678	-100000000.012345
0.000000000000000000023456	50000000.045678
-0.000000000000000000065432	-70000000.023456
-0.000000000000000000098765	80000000.067890
0.000000000000000000089012	-90000000.012345
0.000000000000000000034567	-60000000.034567
-0.000000000000000000012345	100000000.056789
0.000000000000000000109876	30000000.078901
	-40000000.012345
	20000000.090123
	-100000000.034567
	50000000.067890
	-70000000.012345
	80000000.056789
	-90000000.078901

Include Regression Curve: ☑ Degree:

Polynomial Model: $y = \beta_0 + \beta_1 x + \beta_2 x^2 + \beta_3 x^3$ 3

Increase Degree | Decrease Degree

Display output to 4 decimal places Calculate



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Regression Polynomial: $y = -3.383782964983211e+64x^3 - 4.962479654545392e+45x^2 + 4.82104640584806e+26x + 14240074.2292$

R-squared: $r^2 = 0.1448$

Adjusted R-squared: $r^2_{\text{adj}} = 0.0442$

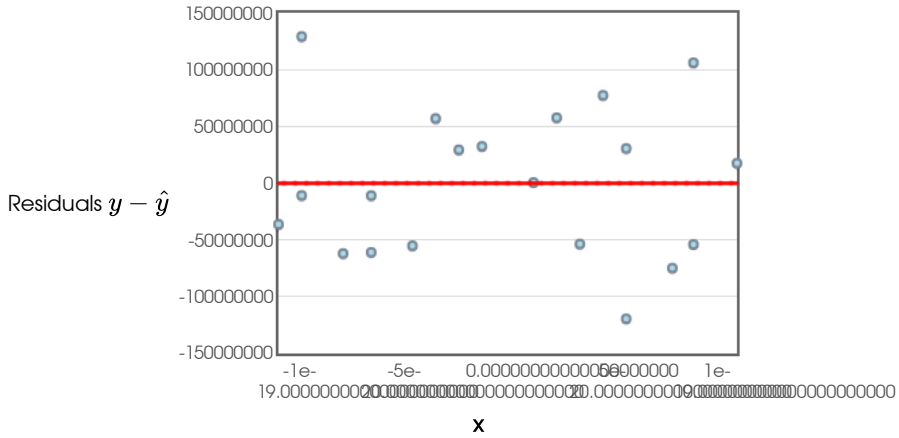
Residual Standard Error: 71324625.8284 on 16 degrees of freedom

Coefficient	Estimate	Standard Error	t-statistic	p-value
β_0	14240074.2292	25175142.3648	0.5656	0.5795
β_1	4.82104640584806e+26	5.893125074749216e+26	0.8181	0.4253
β_2	-4.962479654545392e+45	4.1209073237007034e+45	-1.2042	0.246
β_3	-3.383782964983211e+64	6.838250279253186e+64	-0.4948	0.6274

Analysis of Variance Table

Source	df	SS	MS	F-statistic	p-value
Regression	3	13784764121482494	4594921373827498	0.9032	0.4613
Residual Error	16	81395235992901600	5087202249556350		
Total	19	95180000114384100	5009473690230742		

Residual Plot



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