Using GA to help you determine a function from a set of data

Introduction:

- When you look at a graph, you should be able to quickly identify how X (the independent variable) relates to Y (the dependent variable).
- If the line is straight, then you should be able to quickly determine the slope of the line.
- Of course, you know that X multiplied by the slope will give you Y.
- If the line is curved, then there is some relationship between X and Y that is NON-LINEAR. This worksheet will help you identify what function is being done to X to get Y.

Data:

X	One	Two	Three	Four	Five
0.00	0.00	0.00	0.00	0.00	#NUM!
1.00	1.00	1.00	1.00	1.00	0.00
2.00	4.00	1.41	8.00	1.15	0.30
3.00	9.00	1.73	27.00	1.25	0.48
4.00	16.00	2.00	64.00	1.32	0.60
5.00	25.00	2.24	125.00	1.38	0.70
6.00	36.00	2.45	216.00	1.43	0.78
7.00	49.00	2.65	343.00	1.48	0.85
8.00	64.00	2.83	512.00	1.52	0.90
9.00	81.00	3.00	729.00	1.55	0.95
10.00	100.00	3.16	1000.00	1.58	1.00

Six	Seven	Eight	Nine	Ten	Eleven
1.00	4.00	#DIV/0!	#DIV/0!	#DIV/0!	0.00
10.00	4.70	1.00	5.00	1.00	6.00
100.00	5.40	0.50	2.50	0.25	12.00
1000.00	6.10	0.33	1.67	0.11	18.00
10000.00	6.80	0.25	1.25	0.06	24.00
100000.00	7.50	0.20	1.00	0.04	30.00
1000000.00	8.20	0.17	0.83	0.03	36.00
10000000.00	8.90	0.14	0.71	0.02	42.00
100000000.00	9.60	0.13	0.63	0.02	48.00
1000000000.00	10.30	0.11	0.56	0.01	54.00
10000000000.00	11.00	0.10	0.50	0.01	60.00

In each of the eleven columns above, the value in the X column has had some function done to it.

Here's what you are to do with these numbers:

1. Input X and a column into GA. Look at the curve and do a "curve fit" to determine the name of that curve. (for example: enter X values and "one" values). You can just copy-paste these columns into GA. YOU DON'T NEED TO PRINT OUT A GRAPH!!!!