graph.ipynb

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RAM Disk Editing

Load Necessary Libraries

```
import matplotlib.pyplot as plt
import numpy as np
import pandas as pd
```

Read Data CSV File

Double-click (or enter) to edit

```
url = 'https://drive.google.com/file/d/1zP9kNiw2TEsYl9Dcaq5VPaCJxtP9uaz4/view?usp=sharing'
file_id = url.split('/')[-2]
down_url = 'https://drive.google.com/uc?id=' + file_id
data = pd.read_csv(down_url)
data
```

1 to 25 of 100 entries Filter

index	x	2x	3x	x^3	log x	2x^2+3x	3x+2	x^2	1000x
0	1	2	3	1	0.0	5	5	4	1000
1	2	4	6	8	0.301029996	14	8	16	2000
2	3	6	9	27	0.477121255	27	11	36	3000
3	4	8	12	64	0.602059991	44	14	64	4000
4	5	10	15	125	0.698970004	65	17	100	5000
5	6	12	18	216	0.77815125	90	20	144	6000
6	7	14	21	343	0.84509804	119	23	196	7000
7	8	16	24	512	0.903089987	152	26	256	8000
8	9	18	27	729	0.954242509	189	29	324	9000
9	10	20	30	1000	1.0	230	32	400	10000
10	11	22	33	1331	1.041392685	275	35	484	11000
11	12	24	36	1728	1.079181246	324	38	576	12000
12	13	26	39	2197	1.113943352	377	41	676	13000
13	14	28	42	2744	1.146128036	434	44	784	14000
14	15	30	45	3375	1.176091259	495	47	900	15000
15	16	32	48	4096	1.204119983	560	50	1024	16000
16	17	34	51	4913	1.230448921	629	53	1156	17000
17	18	36	54	5832	1.255272505	702	56	1296	18000
18	19	38	57	6859	1.278753601	779	59	1444	19000
19	20	40	60	8000	1.301029996	860	62	1600	20000
20	21	42	63	9261	1.322219295	945	65	1764	21000
21	22	44	66	10648	1.342422681	1034	68	1936	22000
22	23	46	69	12167	1.361727836	1127	71	2116	23000
23	24	48	72	13824	1.380211242	1224	74	2304	24000
24	25	50	75	15625	1.397940009	1325	77	2500	25000

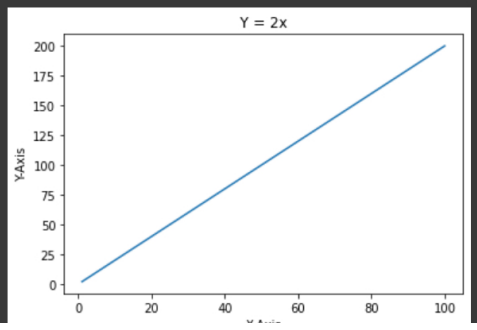
Show 25 per page

1 2 3 4

Like what you see? Visit the data table notebook to learn more about interactive tables.

Funtion Y = 2x

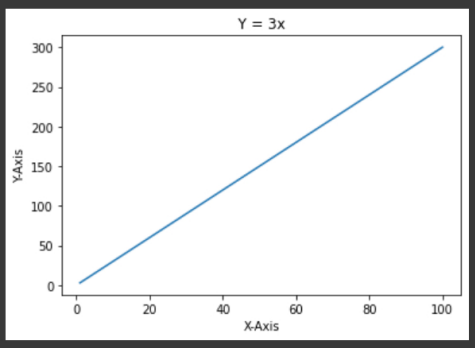
```
[23] x = data['x']
     y = data['2x']
     plt.title('Y = 2x')
     plt.xlabel("X-Axis")
     plt.ylabel("Y-Axis")
     plt.plot(x, y)
     plt.show()
```



X-Axis

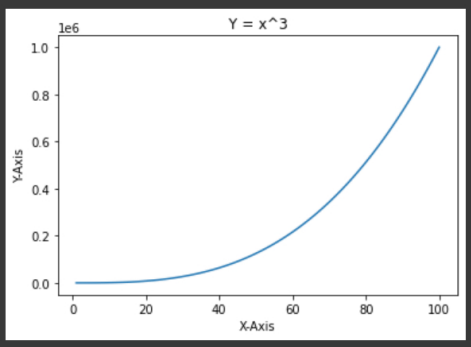
Funtion Y = 3x

```
[24] x = data['x']
     y = data['3x']
     plt.title('Y = 3x')
     plt.xlabel("X-Axis")
     plt.ylabel("Y-Axis")
     plt.plot(x, y)
     plt.show()
```



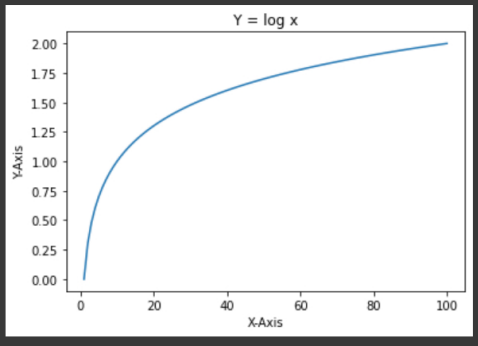
Funtion Y = x^3

```
[26] x = data['x']
     y = data['x^3']
     plt.title('Y = x^3')
     plt.xlabel("X-Axis")
     plt.ylabel("Y-Axis")
     plt.plot(x, y)
     plt.show()
```



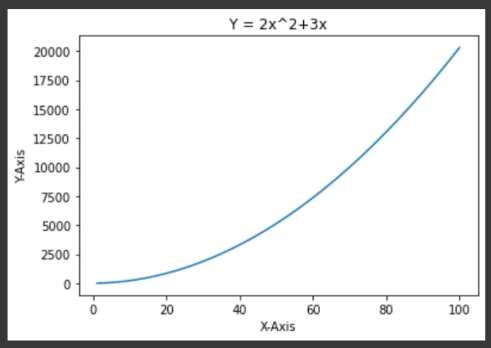
Funtion Y = log x

```
[27] x = data['x']
     y = data['log x']
     plt.title('Y = log x')
     plt.xlabel("X-Axis")
     plt.ylabel("Y-Axis")
     plt.plot(x, y)
     plt.show()
```



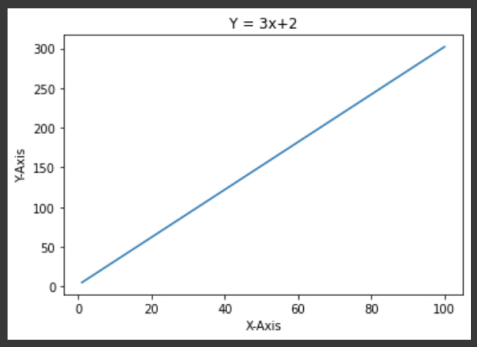
Function Y = 2x^2+3x

```
[28] x = data['x']
     y = data['2x^2+3x']
     plt.title('Y = 2x^2+3x')
     plt.xlabel("X-Axis")
     plt.ylabel("Y-Axis")
     plt.plot(x, y)
     plt.show()
```



Function Y = 3x+2

```
[29] x = data['x']
     y = data['3x+2']
     plt.title('Y = 3x+2')
     plt.xlabel("X-Axis")
     plt.ylabel("Y-Axis")
     plt.plot(x, y)
     plt.show()
```

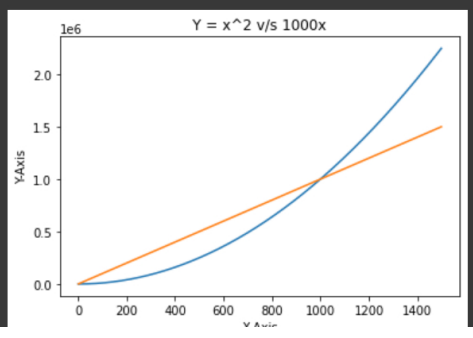


Function Y = x^2 v/s 1000x

```
[59] index = 1
     x = []
     y = []
     z = []

     for i in range(1, 1500):
       x.insert(i, i)
       y.insert(i, pow(i, 2))
       z.insert(i, 1000 * i)


     plt.title('Y = x^2 v/s 1000x')
     plt.xlabel("X-Axis")
     plt.ylabel("Y-Axis")
     plt.plot(x, y)
     plt.plot(x, z)
     plt.show()
```



Describe the region where the two functions meet.

```
Y = X^2
Y = 1000 X
X^2 = 1000 X
X * X = 1000 X
X = 1000 (Point Where the two function will meet)
```

So the point in 1000.