

Month	Price	Demand (00s)
1	450	45
2	300	103
3	440	49
4	360	86
5	290	125
6	450	52
7	340	87
8	370	68
9	500	45
10	490	44
11	430	58
12	390	68



Linear: $y=mx+b$		Power: $y=ax^b$		Exponential: $y=ae^{(bx)}$	
Intercept(b):	211.31	Constant a:	5871064	Constant a:	466.51

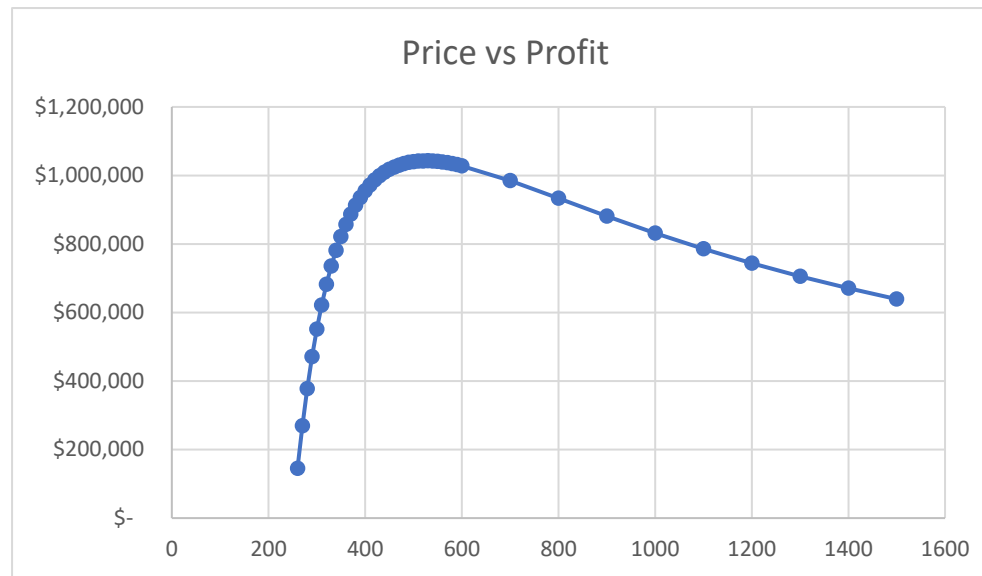
Slope(m)	-0.3546	Exponent b:	-1.908	Exponent b:	-0.005
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Predictions Based on Models				Absolute Percent Error			
Price	Linear	Power	Exponential	Demand (00s)	Linear	Power	Exponential
450	51.74	50.86	49.17	45	15.0%	13.0%	9.27%
300	104.93	110.25	104.09	103	1.9%	7.0%	1.06%
440	55.29	53.09	51.69	49	12.8%	8.3%	5.49%
360	83.65	77.86	77.11	86	2.7%	9.5%	10.33%
290	108.48	117.61	109.43	125	13.2%	5.9%	12.46%
450	51.74	50.86	49.17	52	0.5%	2.2%	5.44%
340	90.75	86.83	85.22	87	4.3%	0.2%	2.04%
370	80.11	73.89	73.35	68	17.8%	8.7%	7.87%
500	34.01	41.60	38.29	45	24.4%	7.6%	14.90%
490	37.56	43.23	40.26	44	14.6%	1.7%	8.51%
430	58.83	55.47	54.34	58	1.4%	4.4%	6.31%
390	73.02	66.83	66.37	68	7.4%	1.7%	2.39%
MAPE:					9.7%	5.9%	7.2%

### Model the Businss:

Unit Cost:	\$ 250	per set of clubs	
Sale Price:	\$ 400	<--multiple of 10	
Demand (00s):	63.68	<--from power model	=D31*B52^D32
Actual Demand:	6368		=B53*100
Cost:	\$ 1,591,939		=B51*B54
Revenue:	\$ 2,547,102		=B54*B52
Profit:	\$ 955,163		=B57-B56

Price	Profit
	\$ 955,163
260	\$ 144,860
270	\$ 269,591
280	\$ 377,277
290	\$ 470,459
300	\$ 551,238
310	\$ 621,370
320	\$ 682,321
330	\$ 735,330
340	\$ 781,443
350	\$ 821,552
360	\$ 856,415
370	\$ 886,685
380	\$ 912,921
390	\$ 935,607



400	\$	955,163
410	\$	971,953
420	\$	986,293
430	\$	998,462
440	\$	1,008,702
450	\$	1,017,226
460	\$	1,024,222
470	\$	1,029,857
480	\$	1,034,276
490	\$	1,037,609
500	\$	1,039,973
510	\$	1,041,469
520	\$	1,042,188
530	\$	1,042,213
540	\$	1,041,616
550	\$	1,040,462
560	\$	1,038,809
570	\$	1,036,711
580	\$	1,034,213
590	\$	1,031,360
600	\$	1,028,187
700	\$	985,104
800	\$	933,220
900	\$	880,918
1000	\$	831,339
1100	\$	785,522
1200	\$	743,640
1300	\$	705,508
1400	\$	670,814
1500	\$	639,212

		Unit Cost							
		\$ 955,163	\$ 250	\$ 300	\$ 350	\$ 400	\$ 450	\$ 500	\$ 550
Sales Price	\$ 260	\$ 144,860	\$ (579,439)	\$ (1,303,738)	#####	\$ (2,752,335)	\$ (3,476,633)	\$ (4,200,932)	
	\$ 270	\$ 269,591	\$ (404,386)	\$ (1,078,362)	#####	\$ (2,426,315)	\$ (3,100,292)	\$ (3,774,268)	
	\$ 280	\$ 377,277	\$ (251,518)	\$ (880,313)	#####	\$ (2,137,904)	\$ (2,766,699)	\$ (3,395,495)	
	\$ 290	\$ 470,459	\$ (117,615)	\$ (705,688)	#####	\$ (1,881,834)	\$ (2,469,908)	\$ (3,057,981)	
	\$ 300	\$ 551,238	\$ -	\$ (551,238)	#####	\$ (1,653,715)	\$ (2,204,954)	\$ (2,756,192)	
	\$ 310	\$ 621,370	\$ 103,562	\$ (414,246)	\$ (932,054)	\$ (1,449,862)	\$ (1,967,670)	\$ (2,485,478)	
	\$ 320	\$ 682,321	\$ 194,949	\$ (292,423)	\$ (779,795)	\$ (1,267,167)	\$ (1,754,540)	\$ (2,241,912)	
	\$ 330	\$ 735,330	\$ 275,749	\$ (183,832)	\$ (643,414)	\$ (1,102,995)	\$ (1,562,576)	\$ (2,022,157)	
	\$ 340	\$ 781,443	\$ 347,308	\$ (86,827)	\$ (520,962)	\$ (955,098)	\$ (1,389,233)	\$ (1,823,368)	
	\$ 350	\$ 821,552	\$ 410,776	\$ -	\$ (410,776)	\$ (821,552)	\$ (1,232,328)	\$ (1,643,104)	
	\$ 360	\$ 856,415	\$ 467,136	\$ 77,856	\$ (311,424)	\$ (700,703)	\$ (1,089,983)	\$ (1,479,262)	
	\$ 370	\$ 886,685	\$ 517,233	\$ 147,781	\$ (221,671)	\$ (591,123)	\$ (960,575)	\$ (1,330,027)	
	\$ 380	\$ 912,921	\$ 561,797	\$ 210,674	\$ (140,449)	\$ (491,573)	\$ (842,696)	\$ (1,193,819)	
	\$ 390	\$ 935,607	\$ 601,462	\$ 267,316	\$ (66,829)	\$ (400,975)	\$ (735,120)	\$ (1,069,265)	
	\$ 400	\$ 955,163	\$ 636,776	\$ 318,388	\$ -	\$ (318,388)	\$ (636,776)	\$ (955,163)	
	\$ 410	\$ 971,953	\$ 668,218	\$ 364,482	\$ 60,747	\$ (242,988)	\$ (546,723)	\$ (850,459)	
	\$ 420	\$ 986,293	\$ 696,207	\$ 406,121	\$ 116,035	\$ (174,052)	\$ (464,138)	\$ (754,224)	
	\$ 430	\$ 998,462	\$ 721,111	\$ 443,761	\$ 166,410	\$ (110,940)	\$ (388,291)	\$ (665,641)	
	\$ 440	\$ 1,008,702	\$ 743,254	\$ 477,806	\$ 212,358	\$ (53,090)	\$ (318,537)	\$ (583,985)	
	\$ 450	\$ 1,017,226	\$ 762,919	\$ 508,613	\$ 254,306	\$ -	\$ (254,306)	\$ (508,613)	
	\$ 460	\$ 1,024,222	\$ 780,360	\$ 536,497	\$ 292,635	\$ 48,772	\$ (195,090)	\$ (438,952)	
	\$ 470	\$ 1,029,857	\$ 795,798	\$ 561,740	\$ 327,682	\$ 93,623	\$ (140,435)	\$ (374,493)	
	\$ 480	\$ 1,034,276	\$ 809,433	\$ 584,591	\$ 359,748	\$ 134,906	\$ (89,937)	\$ (314,780)	
	\$ 490	\$ 1,037,609	\$ 821,441	\$ 605,272	\$ 389,104	\$ 172,935	\$ (43,234)	\$ (259,402)	
	\$ 500	\$ 1,039,973	\$ 831,978	\$ 623,984	\$ 415,989	\$ 207,995	\$ -	\$ (207,995)	
	\$ 510	\$ 1,041,469	\$ 841,186	\$ 640,904	\$ 440,621	\$ 240,339	\$ 40,056	\$ (160,226)	
	\$ 520	\$ 1,042,188	\$ 849,190	\$ 656,193	\$ 463,195	\$ 270,197	\$ 77,199	\$ (115,799)	
	\$ 530	\$ 1,042,213	\$ 856,104	\$ 669,994	\$ 483,885	\$ 297,775	\$ 111,666	\$ (74,444)	
	\$ 540	\$ 1,041,616	\$ 862,027	\$ 682,438	\$ 502,849	\$ 323,260	\$ 143,671	\$ (35,918)	

\$	550	\$ 1,040,462	\$ 867,051	\$ 693,641	\$ 520,231	\$ 346,821	\$ 173,410	\$ -
\$	560	\$ 1,038,809	\$ 871,259	\$ 703,709	\$ 536,160	\$ 368,610	\$ 201,060	\$ 33,510
\$	570	\$ 1,036,711	\$ 874,725	\$ 712,739	\$ 550,753	\$ 388,767	\$ 226,780	\$ 64,794
\$	580	\$ 1,034,213	\$ 877,514	\$ 720,815	\$ 564,116	\$ 407,417	\$ 250,718	\$ 94,019
\$	590	\$ 1,031,360	\$ 879,689	\$ 728,019	\$ 576,348	\$ 424,677	\$ 273,007	\$ 121,336
\$	600	\$ 1,028,187	\$ 881,303	\$ 734,420	\$ 587,536	\$ 440,652	\$ 293,768	\$ 146,884
\$	700	\$ 985,104	\$ 875,648	\$ 766,192	\$ 656,736	\$ 547,280	\$ 437,824	\$ 328,368
\$	800	\$ 933,220	\$ 848,381	\$ 763,543	\$ 678,705	\$ 593,867	\$ 509,029	\$ 424,191
\$	900	\$ 880,918	\$ 813,155	\$ 745,392	\$ 677,629	\$ 609,866	\$ 542,103	\$ 474,340
\$	1,000	\$ 831,339	\$ 775,916	\$ 720,494	\$ 665,071	\$ 609,648	\$ 554,226	\$ 498,803
\$	1,100	\$ 785,522	\$ 739,315	\$ 693,108	\$ 646,901	\$ 600,693	\$ 554,486	\$ 508,279
\$	1,200	\$ 743,640	\$ 704,501	\$ 665,362	\$ 626,223	\$ 587,084	\$ 547,945	\$ 508,806
\$	1,300	\$ 705,508	\$ 671,913	\$ 638,317	\$ 604,721	\$ 571,126	\$ 537,530	\$ 503,935
\$	1,400	\$ 670,814	\$ 641,649	\$ 612,483	\$ 583,317	\$ 554,151	\$ 524,985	\$ 495,819
\$	1,500	\$ 639,212	\$ 613,643	\$ 588,075	\$ 562,506	\$ 536,938	\$ 511,369	\$ 485,801