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a. The Chief Financia

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b. A human resource

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d. A large service firm

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e. A logistics compar

descriptive

f. A disaster relief age

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g. An automobile con

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h. A baseball team w

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Outsourcing Problem

MANUFACTURE
Variable Cost \$10.00 /unit
Fixed Cost \$5,000.00

OUTSOURCE
Variable Cost \$12.00 /unit
Fixed Cost \$0.00

Volume 1200 units
Cost of Manufacturing \$17,000.00
Cost of Outsourcing \$14,400.00 Best option

Advertising Strategies

MODEL:

$$\text{Total Sales} = 1105.55 + 56.18 \times \text{Price} + 123.88 \times \text{Coupon} + 5.24 \times \text{Advertising}$$

WEEK	Price (\$)	Coupon (0,1)	Adv (\$)	Sales In Units			Total Sales
				Store 1	Store 2	Store 3	
1	\$ 6.99	0	\$ -	501	510	481	1,492.00
2	\$ 6.99	0	#####	772	748	775	2,295.00
3	\$ 6.99	1	\$ -	554	528	506	1,588.00
4	\$ 6.99	1	#####	838	785	834	2,457.00
5	\$ 6.49	0	\$ -	521	519	500	1,540.00
6	\$ 6.49	0	#####	723	790	723	2,236.00
7	\$ 6.49	1	\$ -	510	556	520	1,586.00
8	\$ 6.49	1	#####	818	773	800	2,391.00
9	\$ 7.59	0	\$ -	479	491	486	1,456.00
10	\$ 7.59	0	#####	825	822	757	2,404.00
11	\$ 7.59	1	\$ -	533	513	540	1,586.00
12	\$ 7.59	1	#####	839	791	832	2,462.00
13	\$ 5.49	0	\$ -	484	480	508	1,472.00
14	\$ 5.49	0	#####	686	683	708	2,077.00
15	\$ 5.49	1	\$ -	543	531	530	1,604.00
16	\$ 5.49	1	#####	767	743	779	2,289.00

Model	Estimated Sales	Difference Without Coupons	Estimated Sales	Difference Without Advertising	Estimated Sales
	1,498.25	6.25	1,498.25	6.25	1,498.25
	2,284.25	(10.75)	2,284.25	(10.75)	1,498.25
	1,622.13	34.13	1,498.25	(89.75)	1,622.13
	2,408.13	(48.87)	2,284.25	(172.75)	1,622.13
	1,470.16	(69.84)	1,470.16	(69.84)	1,470.16
	2,256.16	20.16	2,256.16	20.16	1,470.16
	1,594.04	8.04	1,470.16	(115.84)	1,594.04
	2,380.04	(10.96)	2,256.16	(134.84)	1,594.04
	1,531.96	75.96	1,531.96	75.96	1,531.96
	2,317.96	(86.04)	2,317.96	(86.04)	1,531.96
	1,655.84	69.84	1,531.96	(54.04)	1,655.84
	2,441.84	(20.16)	2,317.96	(144.04)	1,655.84
	1,413.98	(58.02)	1,413.98	(58.02)	1,413.98
	2,199.98	122.98	2,199.98	122.98	1,413.98
	1,537.86	(66.14)	1,413.98	(190.02)	1,537.86
	2,323.86	34.86	2,199.98	(89.02)	1,537.86

The differences without coupons or advertising are much larger, indicating that these mo

Difference

6.25

(796.75)

34.13

(834.87)

(69.84)

(765.84)

8.04

(796.96)

75.96

(872.04)

69.84

(806.16)

(58.02)

(663.02)

(66.14)

(751.14)

dels are not as accurat

Checking and Savings Account Balance Model

$$\text{BALANCE} = -17,732 + 367 \times \text{AGE} + 1300 \times \text{YEAF}$$

a. The aver

The aver

The aver

b. AGE 32 years old

 EDUCATION 16 years

 WEALTH #####

PREDICTED BALANCE

Marketing Model

$$D = k - pP + aA + tT + qQ$$

- a. P: As Price
 - A: As Adver
 - T: As Trans
 - Q: As Produ
- b. The variables do n
- c. The relationship of
The variables migt

Total Marketing Effort

a	10
---	----

Students would have to choose a reasonable value for a by trial and error.

	b				
x	-0.25	0	0.5	1	1.5
0.25	14.14	10.00	5.00	2.50	1.25
0.50	11.89	10.00	7.07	5.00	3.54
0.75	10.75	10.00	8.66	7.50	6.50
1.00	10.00	10.00	10.00	10.00	10.00
1.25	9.46	10.00	11.18	12.50	13.98
1.50	9.04	10.00	12.25	15.00	18.37
1.75	8.69	10.00	13.23	17.50	23.15
2.00	8.41	10.00	14.14	20.00	28.28
2.25	8.16	10.00	15.00	22.50	33.75
2.50	7.95	10.00	15.81	25.00	39.53

This exercise is designed to help students think in terms of "mental models" and evaluate reasonable assumptions

When $b < 0$, more marketing effort means less demand

When $b = 0$, marketing effort has no effect on demand

When $0 < b < 1$, we can observe law of diminishing returns

When $b = 1$, the relation between marketing effort and demand is linear

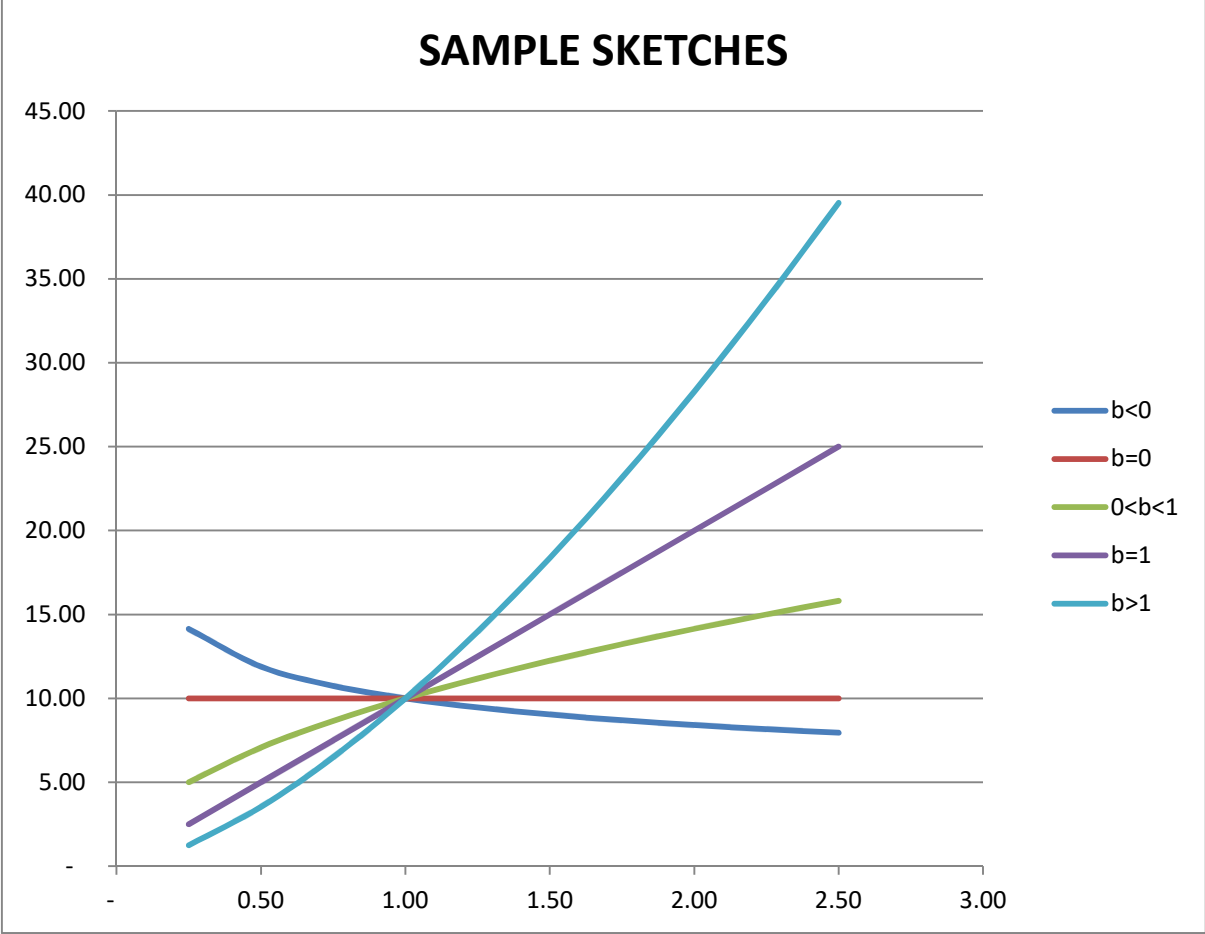
When $b > 1$, the returns in demand increase for every additional unit marketing effort

The models assume that we can clearly measure marketing effect and demand. Also, we do not consider any other factors that affect the demand.

Intuitively, the models when $b < 0$ and $b = 0$ and $b > 1$ does not make much sense.

It is likely that $0 < b \leq 1$

To determine a good estimate for b, we need to collect data and fit it to the given cur



ve.

Headphone Model

Demand Model

$$D = 2500 - 3P$$

Cost Model

$$\begin{aligned} C &= 5000 + 5D \\ &= 5000 + 5 \times (2500 - 3P) = 17500 - 15P \end{aligned}$$

Total Revenue

$$TR = D \times P = (2500 - 3P) \times P = 2500P - 3P^2$$

Total Cost

$$TC = 17500 - 15P$$

Total Profit

$$\begin{aligned} TP &= TR - TC \\ &= 2500P - 3P^2 - (17500 - 15P) \\ &= -17,500 + 2515P - 3P^2 \end{aligned}$$

Problem D

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even if stud
competitive

Demand Prediction Models

Linear Model

a 20,000
b 10
Price \$80.00

Demand #####

Nonlinear Model

c 20,000
d 0.011138
Price \$80.00

Demand #####

Science and Engineering Jobs

Total science and engineering jobs in thousands: 2000 and projected 2010

Occupation	2000	2010	PROJECTED IN	
			Nominal	
Scientists	3,241	5,301		2,060
Life scientists	184	218		34
Mathematical/computer scientist	2,408	4,308		1,900
Computer specialists	2,318	4,213		1,895
Mathematical scientists	89	95		6
Physical scientists	239	283		44
Social scientists	410	492		82
Engineers	1,465	1,603		138
All occupations	145,571	167,754		22,183

INCREASE

Percentage

63.56%
18.48%
78.90%
81.75%
6.74%
18.41%
20.00%
9.42%
15.24%

Salary Model

Starting Salary Annual Increase

\$60,000.00 2.50%

1	\$60,000.00
2	\$61,500.00
3	\$63,037.50
4	\$64,613.44
5	\$66,228.77

Gompertz Curve

MODEL:

$$S = a * e ^ (b * e ^ (c * t))$$

PARAMETERS:

a

15000

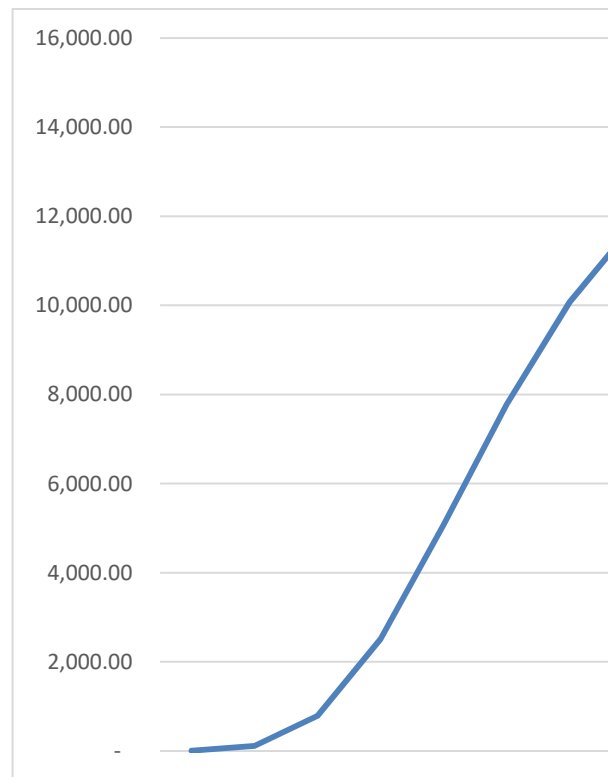
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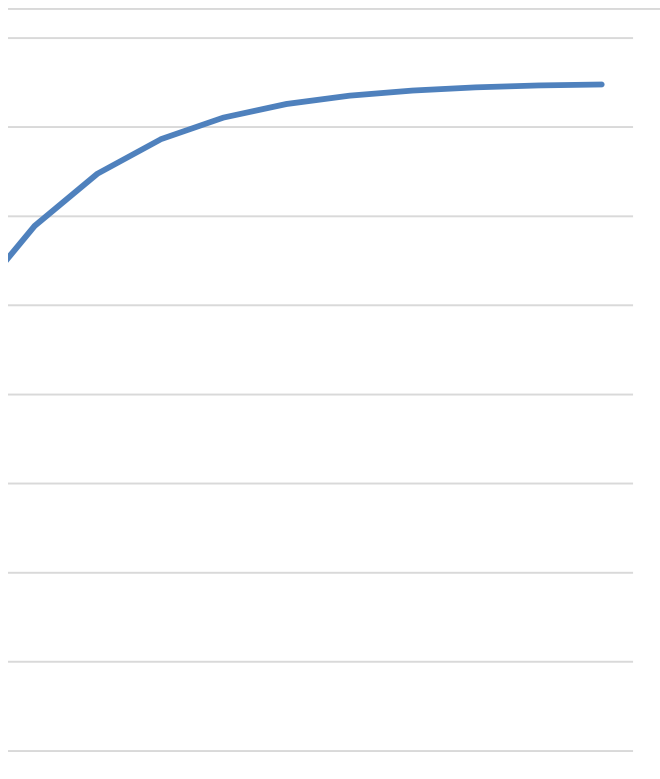
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c

-0.05

t	S
0	5.03
10	117.16
20	790.58
30	2,516.85
40	5,080.29
50	7,778.55
60	10,071.94
70	11,780.80
80	12,955.56
90	13,724.44
100	14,212.85
110	14,517.52
120	14,705.48
130	14,820.67
140	14,890.97
150	14,933.78
160	14,959.80





Return on Investment

Incremental sales	\$15,000,000
Gross margin	45%
Marketing investment	\$3,000,000

Marketing ROI 1.25

Incremental sales	Marketing ROI
\$10,000,000	0.50
\$11,000,000	0.65
\$12,000,000	0.80
\$13,000,000	0.95
\$14,000,000	1.10
\$15,000,000	1.25
\$16,000,000	1.40
\$17,000,000	1.55
\$18,000,000	1.70
\$19,000,000	1.85
\$20,000,000	2.00

Accounting Department Survey Data

Employee Gender Years of Service Years Undergraduate Stud Graduate Degree? CPA?

Employee	Gender	Years of Service	Years Undergraduate Stud	Graduate Degree?	CPA?
1	F	17	4	N	Y
2	F	6	2	N	N
3	M	8	4	Y	Y
4	F	8	4	Y	N
5	M	16	4	Y	Y
6	F	21	1	N	Y
7	M	27	4	N	N
8	F	7	4	Y	Y
9	M	8	4	N	N
10	M	23	2	N	Y
11	F	9	4	Y	Y
12	F	8	2	N	N
13	F	8	4	Y	N
14	M	26	4	N	Y
15	F	9	4	N	Y
16	F	9	2	N	N
17	M	19	2	Y	Y
18	M	5	4	N	N
19	M	19	4	Y	N
20	M	20	4	N	N
21	F	14	4	Y	Y
22	M	31	4	N	N
23	F	10	0	N	N
24	F	10	4	N	Y
25	M	26	4	Y	Y
26	M	28	4	N	N
27	F	5	4	N	Y

- a. 31
- b. 14.704
- c. 13
- d. 8

Age Group

41-45

26-30

31-35

31-35

36-40

51-55

51-55

26-30

31-35

41-45

31-35

26-30

26-30

46-50

26-30

26-30

36-40

36-40

51-55

46-50

36-40

51-55

51-55

31-35

46-50

51-55

21-25

Net Present Value

Year	Revenue
1	\$172,800
2	\$213,580
3	\$293,985

Discount rate 4.20%

NPV #####

Pharmeceutical Manufacturer

YEAR	NET PROFIT
1	-\$300,000,000.00
2	-\$145,000,000.00
3	\$50,000,000.00
4	\$125,000,000.00
5	\$530,000,000.00

Fixed Cost \$80,000,000.00

Discount Rate 3%

NPV \$106,062,076.93

Credit Risk Base Data

<u>Loan Purpose</u>	<u>Checking</u>
mall Appliance	\$0
Furniture	\$0
New Car	\$0
Furniture	\$638
Education	\$963
Furniture	\$2,827
New Car	\$0
Business	\$0
mall Appliance	\$6,509
mall Appliance	\$966
Business	\$0
New Car	\$0
Business	\$322
New Car	\$0
New Car	\$396
Used Car	\$0
Furniture	\$652
New Car	\$708
Repairs	\$207
Education	\$287
Furniture	\$0
Furniture	\$101
Furniture	\$0
Furniture	\$0
New Car	\$0
Business	\$141
Used Car	\$0
Used Car	\$2,484
mall Appliance	\$237
mall Appliance	\$0
Education	\$335
mall Appliance	\$3,565
mall Appliance	\$0
Business	\$16,647
Business	\$0
mall Appliance	\$0
Furniture	\$0
mall Appliance	\$940
mall Appliance	\$0
New Car	\$0
Other	\$218

<u>Loan Purpose</u>	<u>Number of Applicants</u>
New Car	104
Used Car	40
Business	44
Education	23
Small Appliance	105
Furniture	85

<u>Checking Acct Balance</u>	<u>No of Customers</u>
less than \$500	312

Used Car	\$0
mall Appliance	\$16,935
Furniture	\$664
Furniture	\$150
mall Appliance	\$0
Furniture	\$216
New Car	\$0
Business	\$0
mall Appliance	\$0
mall Appliance	\$265
Furniture	\$4,256
Business	\$870
New Car	\$162
Used Car	\$0
Education	\$0
Furniture	\$0
New Car	\$461
New Car	\$0
Furniture	\$0
New Car	\$0
New Car	\$580
mall Appliance	\$0
New Car	\$0
mall Appliance	\$0
mall Appliance	\$0
Business	\$758
Used Car	\$399
Furniture	\$513
Furniture	\$0
New Car	\$0
mall Appliance	\$565
Business	\$0
Furniture	\$0
mall Appliance	\$0
New Car	\$166
Business	\$9,783
Business	\$674
Repairs	\$0
Business	\$15,328
New Car	\$0
Education	\$713
New Car	\$0
Education	\$0
New Car	\$0
mall Appliance	\$0

Used Car	\$0
mall Appliance	\$303
mall Appliance	\$900
Furniture	\$0
Education	\$1,257
mall Appliance	\$0
Repairs	\$273
Business	\$522
mall Appliance	\$0
mall Appliance	\$0
mall Appliance	\$0
New Car	\$0
mall Appliance	\$514
Furniture	\$457
mall Appliance	\$5,133
New Car	\$0
Retraining	\$644
Furniture	\$305
New Car	\$9,621
Education	\$0
Business	\$0
Furniture	\$0
New Car	\$0
Used Car	\$0
mall Appliance	\$6,851
Furniture	\$13,496
Business	\$509
Used Car	\$0
Furniture	\$19,155
Furniture	\$0
mall Appliance	\$0
Used Car	\$374
arge Appliance	\$0
Furniture	\$828
Furniture	\$0
mall Appliance	\$829
mall Appliance	\$0
Furniture	\$0
New Car	\$939
New Car	\$0
New Car	\$889
Furniture	\$876
mall Appliance	\$893
Business	\$12,760
Furniture	\$0

mall Appliance	\$0
mall Appliance	\$959
mall Appliance	\$0
Other	\$0
Business	\$0
Repairs	\$0
New Car	\$698
Furniture	\$0
Furniture	\$0
mall Appliance	\$0
mall Appliance	\$12,974
Furniture	\$0
mall Appliance	\$317
Business	\$0
Repairs	\$0
mall Appliance	\$0
Furniture	\$192
New Car	\$0
New Car	\$0
Used Car	\$0
New Car	\$0
Used Car	\$0
New Car	\$942
mall Appliance	\$0
New Car	\$3,329
Used Car	\$0
Education	\$0
Furniture	\$0
arge Appliance	\$0
Furniture	\$0
Furniture	\$0
Business	\$339
Used Car	\$0
mall Appliance	\$0
mall Appliance	\$0
Used Car	\$105
mall Appliance	\$0
Repairs	\$216
Furniture	\$113
Used Car	\$109
New Car	\$0
New Car	\$0
New Car	\$8,176
Repairs	\$0
Furniture	\$468

Used Car	\$7,885
mall Appliance	\$0
New Car	\$0
Business	\$0
mall Appliance	\$0
mall Appliance	\$0
Business	\$0
Furniture	\$0
Furniture	\$0
mall Appliance	\$0
mall Appliance	\$734
Furniture	\$0
Used Car	\$0
Business	\$172
New Car	\$644
New Car	\$0
Furniture	\$617
New Car	\$0
mall Appliance	\$586
Furniture	\$0
mall Appliance	\$0
Business	\$0
mall Appliance	\$0
New Car	\$0
Education	\$522
New Car	\$585
New Car	\$5,588
New Car	\$0
Furniture	\$352
mall Appliance	\$0
Business	\$2,715
Other	\$560
mall Appliance	\$895
New Car	\$305
mall Appliance	\$0
New Car	\$0
Furniture	\$0
Business	\$8,948
Used Car	\$0
Used Car	\$0
mall Appliance	\$0
mall Appliance	\$0
Education	\$0
mall Appliance	\$483
arge Appliance	\$0

Education	\$0
Furniture	\$0
Business	\$663
New Car	\$624
Repairs	\$0
Furniture	\$0
mall Appliance	\$152
New Car	\$0
mall Appliance	\$0
Business	\$498
New Car	\$0
mall Appliance	\$156
Used Car	\$1,336
New Car	\$0
mall Appliance	\$0
Furniture	\$0
New Car	\$2,641
Used Car	\$0
Business	\$0
Furniture	\$0
Used Car	\$0
mall Appliance	\$0
mall Appliance	\$887
Business	\$0
Furniture	\$0
mall Appliance	\$0
mall Appliance	\$0
New Car	\$18,408
New Car	\$497
Used Car	\$0
mall Appliance	\$946
Business	\$986
Education	\$8,122
Furniture	\$0
Business	\$778
Other	\$645
Furniture	\$0
New Car	\$682
New Car	\$19,812
Business	\$0
Used Car	\$0
Business	\$859
mall Appliance	\$0
New Car	\$0
New Car	\$0

Furniture	\$0
Repairs	\$0
mall Appliance	\$0
mall Appliance	\$795
Furniture	\$0
Furniture	\$0
Furniture	\$0
Furniture	\$0
Other	\$852
Education	\$0
mall Appliance	\$0
New Car	\$425
Business	\$0
Business	\$0
Education	\$0
New Car	\$11,072
Used Car	\$0
Used Car	\$219
New Car	\$8,060
New Car	\$0
New Car	\$0
mall Appliance	\$0
New Car	\$0
New Car	\$1,613
Furniture	\$757
Retraining	\$0
New Car	\$0
Education	\$977
Education	\$197
Furniture	\$0
New Car	\$0
mall Appliance	\$0
Business	\$0
New Car	\$0
mall Appliance	\$256
New Car	\$296
Furniture	\$0
New Car	\$0
Furniture	\$0
mall Appliance	\$298
mall Appliance	\$0
Furniture	\$8,636
New Car	\$0
New Car	\$0
New Car	\$19,766

New Car	\$0
New Car	\$0
Furniture	\$0
mall Appliance	\$0
Furniture	\$4,089
New Car	\$0
Repairs	\$271
New Car	\$949
mall Appliance	\$0
mall Appliance	\$911
New Car	\$0
Used Car	\$0
New Car	\$0
Other	\$0
Used Car	\$271
mall Appliance	\$0
Used Car	\$0
New Car	\$0
Furniture	\$0
New Car	\$4,802
Business	\$177
mall Appliance	\$0
New Car	\$0
Education	\$996
Education	\$705
Furniture	\$0
New Car	\$0
mall Appliance	\$5,960
Furniture	\$0
Furniture	\$759
Furniture	\$0
mall Appliance	\$651
Business	\$257
mall Appliance	\$955
mall Appliance	\$0
mall Appliance	\$8,249
mall Appliance	\$0
mall Appliance	\$956
New Car	\$382
Furniture	\$0
Education	\$842
Repairs	\$3,111
mall Appliance	\$0
Furniture	\$0
mall Appliance	\$2,846

mall Appliance	\$231
Repairs	\$0
mall Appliance	\$17,366
mall Appliance	\$0
New Car	\$332
mall Appliance	\$242
New Car	\$0
Business	\$929
mall Appliance	\$0
Used Car	\$0
New Car	\$0
Furniture	\$0
New Car	\$0
Used Car	\$0
mall Appliance	\$0
Used Car	\$646
New Car	\$538
Furniture	\$0
mall Appliance	\$0
Furniture	\$0
mall Appliance	\$0
New Car	\$135
Used Car	\$2,472
New Car	\$0
New Car	\$10,417
mall Appliance	\$211
mall Appliance	\$16,630
Furniture	\$0
Furniture	\$642
mall Appliance	\$0
mall Appliance	\$296
Business	\$898
New Car	\$478
New Car	\$315
New Car	\$122
Furniture	\$0
mall Appliance	\$0
Education	\$0
Business	\$670
Business	\$444
New Car	\$3,880
Used Car	\$819
Used Car	\$0
arge Appliance	\$0
Furniture	\$0

Business	\$0
Furniture	\$0
New Car	\$0
Education	\$0
Used Car	\$0
New Car	\$0
Furniture	\$161
Furniture	\$0
Used Car	\$0
New Car	\$789
mall Appliance	\$765
Furniture	\$0
New Car	\$0
Furniture	\$983
Used Car	\$0
Used Car	\$0
Education	\$798
New Car	\$0
New Car	\$193
mall Appliance	\$497
Furniture	\$0
New Car	\$0
New Car	\$0
New Car	\$0

Store and Regional Database

ID	Store No	Sales Region	Item No.	Item Description	Unit Price	Units Sold
1	1	South	2005	24" Monitor	\$229.00	28
2	1	South	2005	24" Monitor	\$229.00	30
3	1	South	2005	24" Monitor	\$229.00	9
4	1	South	3006	Wireless Keyboa	\$19.95	30
5	1	South	3006	Wireless Keyboa	\$19.95	35
6	1	South	3006	Wireless Keyboa	\$19.95	39
7	1	South	6050	PC Mouse	\$8.95	28
8	1	South	6050	PC Mouse	\$8.95	3
9	1	South	6050	PC Mouse	\$8.95	38
10	1	South	8500	Laptop	\$849.95	25
11	1	South	8500	Laptop	\$849.95	27
12	1	South	8500	Laptop	\$849.95	33
13	2	South	2005	24" Monitor	\$229.00	8
14	2	South	2005	24" Monitor	\$229.00	8
15	2	South	2005	24" Monitor	\$229.00	10
16	2	South	3006	Wireless Keyboa	\$19.95	8
17	2	South	3006	Wireless Keyboa	\$19.95	8
18	2	South	3006	Wireless Keyboa	\$19.95	8
19	2	South	6050	PC Mouse	\$8.95	9
20	2	South	6050	PC Mouse	\$8.95	9
21	2	South	6050	PC Mouse	\$8.95	8
22	2	South	8500	Laptop	\$849.95	18
23	2	South	8500	Laptop	\$849.95	18
24	2	South	8500	Laptop	\$849.95	20
25	3	South	2005	24" Monitor	\$229.00	38
26	3	South	2005	24" Monitor	\$229.00	30
27	3	South	2005	24" Monitor	\$229.00	3
28	3	South	3006	Wireless Keyboa	\$19.95	30
29	3	South	3006	Wireless Keyboa	\$19.95	32
30	3	South	3006	Wireless Keyboa	\$19.95	33
31	3	South	6050	PC Mouse	\$8.95	25
32	3	South	6050	PC Mouse	\$8.95	5
33	3	South	6050	PC Mouse	\$8.95	26
34	3	South	8500	Laptop	\$849.95	28
35	3	South	8500	Laptop	\$849.95	27
36	3	South	8500	Laptop	\$849.95	29
37	4	North	2005	24" Monitor	\$229.00	18
38	4	North	2005	24" Monitor	\$229.00	20
39	4	North	2005	24" Monitor	\$229.00	4
40	4	North	3006	Wireless Keyboa	\$19.95	12
41	4	North	3006	Wireless Keyboa	\$19.95	24

42	4	North	3006	Wireless Keyboa	\$19.95	36
43	4	North	6050	PC Mouse	\$8.95	29
44	4	North	6050	PC Mouse	\$8.95	11
45	4	North	6050	PC Mouse	\$8.95	38
46	4	North	8500	Laptop	\$849.95	21
47	4	North	8500	Laptop	\$849.95	24
48	4	North	8500	Laptop	\$849.95	30
49	5	North	2005	24" Monitor	\$229.00	27
50	5	North	2005	24" Monitor	\$229.00	25
51	5	North	2005	24" Monitor	\$229.00	23
52	5	North	3006	Wireless Keyboa	\$19.95	80
53	5	North	3006	Wireless Keyboa	\$19.95	82
54	5	North	3006	Wireless Keyboa	\$19.95	75
55	5	North	6050	PC Mouse	\$8.95	65
56	5	North	6050	PC Mouse	\$8.95	24
57	5	North	6050	PC Mouse	\$8.95	55
58	5	North	8500	Laptop	\$849.95	55
59	5	North	8500	Laptop	\$849.95	57
60	5	North	8500	Laptop	\$849.95	47
61	6	East	2005	24" Monitor	\$229.00	24
62	6	East	2005	24" Monitor	\$229.00	85
63	6	East	2005	24" Monitor	\$229.00	56
64	6	East	3006	Wireless Keyboa	\$19.95	52
65	6	East	3006	Wireless Keyboa	\$19.95	58
66	6	East	3006	Wireless Keyboa	\$19.95	69
67	6	East	6050	PC Mouse	\$8.95	35
68	6	East	6050	PC Mouse	\$8.95	39
69	6	East	6050	PC Mouse	\$8.95	44
70	6	East	8500	Laptop	\$849.95	78
71	6	East	8500	Laptop	\$849.95	88
72	6	East	8500	Laptop	\$849.95	99
73	7	East	2005	24" Monitor	\$229.00	34
74	7	East	2005	24" Monitor	\$229.00	36
75	7	East	2005	24" Monitor	\$229.00	35
76	7	East	3006	Wireless Keyboa	\$19.95	49
77	7	East	3006	Wireless Keyboa	\$19.95	47
78	7	East	3006	Wireless Keyboa	\$19.95	48
79	7	East	6050	PC Mouse	\$8.95	45
80	7	East	6050	PC Mouse	\$8.95	42
81	7	East	6050	PC Mouse	\$8.95	45
82	7	East	8500	Laptop	\$849.95	55
83	7	East	8500	Laptop	\$849.95	57
84	7	East	8500	Laptop	\$849.95	55
85	8	East	2005	24" Monitor	\$229.00	18
86	8	East	2005	24" Monitor	\$229.00	17

87	8	East	2005	24" Monitor	\$229.00	23
88	8	East	3006	Wireless Keyboa	\$19.95	22
89	8	East	3006	Wireless Keyboa	\$19.95	18
90	8	East	3006	Wireless Keyboa	\$19.95	22
91	8	East	6050	PC Mouse	\$8.95	14
92	8	East	6050	PC Mouse	\$8.95	16
93	8	East	6050	PC Mouse	\$8.95	17
94	8	East	8500	Laptop	\$849.95	32
95	8	East	8500	Laptop	\$849.95	28
96	8	East	8500	Laptop	\$849.95	30

Week Ending Total Weekly Revenue

October	\$6,412.00
November	\$6,870.00
December	\$2,061.00
October	\$598.50
November	\$698.25
December	\$778.05
October	\$250.60
November	\$26.85
December	\$340.10
October	\$21,248.75
November	\$22,948.65
December	\$28,048.35
October	\$1,832.00
November	\$1,832.00
December	\$2,290.00
October	\$159.60
November	\$159.60
December	\$159.60
October	\$80.55
November	\$80.55
December	\$71.60
October	\$15,299.10
November	\$15,299.10
December	\$16,999.00
October	\$8,702.00
November	\$6,870.00
December	\$687.00
October	\$598.50
November	\$638.40
December	\$658.35
October	\$223.75
November	\$44.75
December	\$232.70
October	\$23,798.60
November	\$22,948.65
December	\$24,648.55
October	\$4,122.00
November	\$4,580.00
December	\$916.00
October	\$239.40
November	\$478.80

STORE NO TOTAL SALES REVENUE

1	\$90,281.10
2	\$54,262.70
3	\$90,051.25
4	\$75,498.75
5	\$158,334.00
6	\$267,648.90
7	\$170,040.85
8	\$91,435.05

SALES REGION TOTAL SALES REVENUE

South	\$234,595.05
North	\$233,832.75
East	\$529,124.80

December	\$718.20
October	\$259.55
November	\$98.45
December	\$340.10
October	\$17,848.95
November	\$20,398.80
December	\$25,498.50
October	\$6,183.00
November	\$5,725.00
December	\$5,267.00
October	\$1,596.00
November	\$1,635.90
December	\$1,496.25
October	\$581.75
November	\$214.80
December	\$492.25
October	\$46,747.25
November	\$48,447.15
December	\$39,947.65
October	\$5,496.00
November	\$19,465.00
December	\$12,824.00
October	\$1,037.40
November	\$1,157.10
December	\$1,376.55
October	\$313.25
November	\$349.05
December	\$393.80
October	\$66,296.10
November	\$74,795.60
December	\$84,145.05
October	\$7,786.00
November	\$8,244.00
December	\$8,015.00
October	\$977.55
November	\$937.65
December	\$957.60
October	\$402.75
November	\$375.90
December	\$402.75
October	\$46,747.25
November	\$48,447.15
December	\$46,747.25
October	\$4,122.00
November	\$3,893.00

December	\$5,267.00
October	\$438.90
November	\$359.10
December	\$438.90
October	\$125.30
November	\$143.20
December	\$152.15
October	\$27,198.40
November	\$23,798.60
December	\$25,498.50

Break-Even Decision Model

Data

Click on a cell to see its range name in the Name

Manufactured in-house		
	Fixed cost	\$50,000
	Unit variable cost	\$125
Purchased from supplier		
	Unit cost	\$175
	Production volume	1500

Model

Total manufacturing cost	\$237,500
Total purchased cost	\$262,500

Cost difference (Manufacture - Purchase)	-\$25,000
Best Decision	Manufacture

ie box. Example:

Fixed_cost		50000	
	A	B	C
1	Break-Even Decision Model		
2			
3	Data	Click on a cell to see its range name	
4			
5	Manufactured in-house		
6	Fixed cost	\$50,000	
7	Unit variable cost	\$125	
8			
9	Purchased from supplier		
10	Unit cost	\$175	
11			
12	Production volume	1500	
13			
14	Model		
15			
16	Total manufacturing cost	\$237,500	
17	Total purchased cost	\$262,500	
18			
19	Cost difference (Manufacture - Purchase)	-\$25,000	
20	Best Decision	Manufacture	

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ne in the Name box.

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Crebo Manufacturing Model

Product	Plugs (X1)	Rails (X2)	Rivets (X3)	Clips (X4)
Gross margin/unit	\$0.30	\$1.30	\$0.75	\$1.20
Minutes/unit	1	2.5	1.5	2
Gross margin/minute	\$0.30	\$0.52	\$0.50	\$0.60
Maximum production	#####	#####	#####	#####
Profit	\$84,000	\$145,600	\$140,000	\$168,000

Click on a data cell to see its range name in the Name box
Click on a formula cell to see the range names used in the formula

Machine Capacity

280,000

ie box.
in the formula

Hotel Overbooking Model

Data

Click on a c

Click on a f

Rooms available	300
Price	\$120
Overbooking cost	\$100

Model

Reservation limit	310
Customer demand	312
Reservations made	310
Cancellations	6
Customer arrivals	304

Overbooked customers	4
Net revenue	\$35,600