Problem 4 Solution

	No. of customers	Labor cost
• July	5,000	$20,500
February	2,400	10,450
Difference	2,600	10,050

Variable cost/customer : $10,050/2,600 = $3.8654

- Variable labor cost: $3.8654 x 5,000 = $19,327
  Fixed labor cost : $20,500 - $19, 327 = $1,173

3. 3,900 x $3.8654 + ($1,173) = $16,248

Problem 11 Solution

	Rooms	Food	Gift	Total
Dept. Income	$340,000	$145,000	$500	$485,500
Adm.&Gen.	39,438	50,202	360	90,000
Mktg.	30,674	39,046	280	70,000
POM &UC	30,674	39,046	280	70,000
Insurance	4,382	5,578	40	10,000
Depreciation	35,056	44,624	320	80,000
Dept.income	$199,776	$(33,496)	$(780)	165,500
Income taxes				50,000
Net income				$115,500

Problem 14 Solution

Close Lounge:

Pre-tax Income	$55,000
Overhead decrease	10,000
Rooms profits decrease	-3,000
Restaurant profit increase	6,000
Lounge conversion cost	-1,000
Equipment salvage	500
Taxable income	67,500
Taxes (.4444)	30,000
Net Income	$37,500

Problem 14, contd.

Lease:

Pretax Income	$55,000
Overhead decrease	5,000
Plus: lease income	4,583
Taxable income	64,583
Taxes (.4444)	- 28,700
Net income	35,883

Continue as is:	$25,000
Close lounge:	$37,500
Lease:	$35,883

Chapter 7, Problem 1

1. Breakeven point in meals for 19X3

FC/CM = $20,000/$5 = 4,000 meals

- Breakeven point in food revenue for 19X3

FC/CMR = $20,000/0.4878 = $41,000

Problem 1, contd.

3. Expected breakeven point in meals for 19X4

FC/CM = $22,000/$4.75 = 4,631.58 meals

- Expected breakeven point in food revenue

FC/CMR = $22,000/0.4634 = $47,475

Problem 5 Solution

Part 1:

B/E = FC/SP-VC = $20,000
$30 - $10 = 1,000 rooms
B/E revenues = 1,000 rooms x $30
= $30,000

Part 2:

Current revenues = $450,000
B/E revenues = $360,000
MOS revenues = $ 90,000
MOS rooms = 3,000

Problem 5, contd.

Part 3:

Required rooms = FC + DP/CM = $240,000 + 100,000
$20

= 17,000 rooms

Part 4:

Occupancy rate = Rooms occupied/Rooms available
= 17,000/50x365
= 93.15%

Problem 6 Solution

Part 1:

	Revs.	VC	CM
Rooms	$2,500,000	$750,000	$1,750,000
Coffee Shop	750,000	300,000	450,000
Restaurant	1,200,000	750,000	450,000
Totals	$4,450,000	$1,800,000	$2,650,000

Weighted CMR = $2,650,000
$4,450,000 = 0.5955

Part 2:
FC + DP/CMRw = $1,500,000/0.5955 = $2,518,892

Problem 6, contd.

Part 3:
If income tax is 30%, then taxable income is:
$500,000/1 – 0.3 = $714,286

Then required sales = FC + DP/CMRw

$$= \frac{\$1,000,000+\$714,286}{0.5955}$$

= $2,878,733

Problem 12 Solution

Part 1:
Food dept.'s CMR = $\frac{\$ 50,000}{\$200,000} = 0.25$

Part 2:
CMRw = $\frac{\$401,000}{\$705,000} = 0.5688$

Part 3:
B/E point = FC/CMRw = $\frac{\$151,000}{0.5688} = \$265,471$

Problem 12, contd.

Part 4:
$30,000 net income increase equals: $30,000/1-0.5
= $60,000

CMRrooms = $\frac{\$350,000}{\$500,000} = 0.7$

Increased room sales = $60,000/0.7 = $85,714

Part 5:
CMRstables = $1,000/$5,000 = 0.2
Required sales increase from stables = $500/0.2
= $2,500

Problem 12, contd.

Part 6:

Total revenue to cover increase in $1,500 fixed cost:

Required increase in sales = FC/CMRw

$$= \frac{\$1,500}{0.5688}$$

= $2,637