

Chapter 8, Problem 3

Part 1:

The average room rate for a property with multiple types of room is the weighted average of each of their room rates.

If we let the single room rate = \$x

Then the double rate = \$(x+10)

And the king = 2x

$$\text{So, } 0.2x + 0.6(x+10) + 0.2(2x) = \$75$$

$$x = \$57.50$$

Part 2:

$$0.3333(x) + 0.3333(x+10) + 0.3333(2x) = \$75$$

$$= \$53.75$$

Problem 5, Solution

Part 1:

Price elasticity coefficients: $\frac{\% \text{change in Ave. Qd}}{\% \text{change in Ave. P}}$

$$E = \frac{\text{change in Qd/Ave. Qd}}{\text{change in P/Ave. P}}$$

Super Burger: $\frac{50}{450+400/2}$

$$\frac{0.50}{5.45+4.95/2} = 1.22$$

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Problem 5, contd.

Golden Chicken $E = \frac{1000-800}{\frac{1000+800}{2} \cdot \frac{5.95-6.45}{5.95+6.45/2}} = 2.71$

Ocean Delight $E = \frac{400-600}{\frac{400+600}{2} \cdot \frac{6.95-6.45}{6.95+6.45/2}} = 6.45$

This suggests that the demand is elastic

Problem 8, Solution

Part1:

Net Income	\$60,000
Pretax income	80,000
Interest expense	40,000
Undist. Op. expenses	480,000
Direct exp.	61,320

Total Rooms rev. 661,320

Ave. room rate = $\$661,320 / 30 \times .80 \times 365$
= \$75.49

Problem 8, contd.

Part 2:

At 80% occupancy, there are 24 rooms sold each night.
Of the 24 rooms, 40% are double = 10rooms.

If single rate is \$x, then double rate is \$(x+10). Total rooms sales
per night = $\$661,320 / 8760 \text{ rooms} = \$1,812$

$$\begin{aligned} \text{So, } 14x + 10(x+10) &= \$1,812 \\ x &= \$71.33 \\ x+10 &= \$81.33 \end{aligned}$$

Problem 8, contd.

Part 3:

Total Rooms revenue	\$661,320
Less: Rest. Dept. profit	- 20,000
Net rooms revenue	641,320

$$\begin{aligned} \text{Ave. room rate} &= \frac{\$641,320}{8,760} \\ &= \$73.21 \end{aligned}$$

$$\begin{aligned} \text{Room rate decrease: } &\$75.49 - \$73.21 \\ &= \$2.28 \end{aligned}$$

Problem 13, Solution

Alternative 1:

Net income	\$280,000
Pre-tax income	400,000
Interest expense	960,000
Fixed charges	700,000
Undist. Op. Exp.	3,000,000
Less: Food income	- 300,000
Telephone	- 10,000
Direct expenses	1,067,625
Total w/o Mgt. Fees	5,817,625

Problem 13, contd.

If Mgt. Fees represent 3% of room sales
then, 97% of room sales equals \$5,817,625

Therefore, total rooms sales = $\frac{\$5,817,625}{0.97}$

= \$5,997,552

Total room nights: $300 \times 0.65 \times 365 = 71,175$ room nights

Therefore Ave. room rate = $\frac{\$5,997,552}{71,175}$

= \$84.26

Problem 13, contd.

Alternative 2:

Room sales = \$6,111,672

Total room nights = 76,650

Ave room rate = \$79.73

Alternative 3:

Room sales = \$6,918,189

Total room nights = 71,175

Ave. room rate = \$97.20

Problem 13, contd.

Alternative 4:

Room sales = \$7,279,390

Total room nights = 82,125

Ave. room rate = \$88.64

Alternative 5:

Room sales = \$7,423,215

Total room nights = 87,600

Ave. room rate = \$84.74
