

## Managing Profits Using Marketing Strategies (Key)

Read the word problems carefully and calculate the profits. Be sure to show your work on the side. Circle the correct answer.

1. Several students have a really great business plan and decide to start a graphic t-shirt company. After initial expenses of \$320.00, the students will purchase each t-shirt for \$3.00. They will then sell each shirt for \$12.00.

How many must they sell to break even? Round your answer to the nearest whole number.

- a. 427  
b. 27  
c. 36  
d. 107

$$\begin{aligned} \$12.00 - \$3.00 &= \$9.00 \\ \$320.00 \div \$9.00 &= 35.55 \end{aligned}$$

2. A fast food restaurant averages about \$7.23 of daily transactions of 3,219. A coffee house averages about \$8.63 per 8,700 transactions. How much more does the coffee house make per day than the restaurant?

Daily Revenue = Average Purchase \* Number of daily transactions

- a. \$23,273.37  
b. \$75,081.00  
c. \$98,354.37  
d. \$51,807.63

$$\begin{aligned} \text{Restaurant } \$7.23 * 3,219 &= \$23,273.37 \\ \text{Coffee house } \$8.63 * 8,700 &= \$75,081.00 \\ \$75,081.00 - \$23,273.37 &= \$51,807.63 \end{aligned}$$

3. Sally is the concierge at a hotel. She is booking a water park trip for the Sanchez family that includes 2 adults, 2 seniors and 3 children ages 11, 13 and 15. With the hotel discount the ticket prices are:

- general admission (x) (12 – 54 years) \$36.79
- child/senior admission (y) (3 – 11 & 55+ years) \$28.79

How much will Sally charge the Sanchez family?

Use the equation to calculate your total cost:  $C = 36.79x + 28.79y$

- a. \$217.53  
b. \$233.53  
c. \$ 65.58  
d. \$241.53

$$\begin{aligned} C &= 36.79 * 4 \text{ adults} + 28.79 * 3 \\ C &= \$36.79 * 4 = \$147.16 \\ C &= \$28.79 * 3 = \$86.37 \\ \$147.16 + \$86.37 &= \$233.53 \\ C &= \$233.53 \end{aligned}$$

4. Hannah works at the gift shop in a local hotel. She makes popcorn to sell in the gift shop. The large popcorn cost \$4 and the small popcorn cost \$2. Hannah sold 80 popcorns in all and collected \$236.00.

Use the equation below to find out how many large (x) and small (y) bags of popcorn she sold.

$$x + y = 80$$
$$4x + 2y = 236$$

- a.  $x = 60$  and  $y = 20$   
b.  $x = 42$  and  $y = 34$   
c.  $x = 55$  and  $y = 25$   
d.  $x = 38$  and  $y = 42$

$$\begin{aligned} \$236.00 &= \$4.00 * (x) + \$2.00 * (y) \\ 38 * \$4.00 &= \$152.00 \\ 42 * \$2.00 &= \$84.00 \\ \$152.00 + \$84.00 &= \$236.00 \end{aligned}$$

5. Lisa is running a hotel that makes 55% profit on every room that is sold at the regular daily rate of \$89.00 not including tax. It cost \$2,200.00 to run the hotel for one night. How many rooms per night must be occupied to break even?

Formula: profit = daily rate \* % profit \* (X)

- a. 45  
b. 49  
c. 1210  
d. 55

$$\begin{aligned} P &= \$89.00 * 55% * (X) \\ \$2,200 \div \$89.00 &= \$24.72 \\ \$24.72 \div 55% &= 44.94 \end{aligned}$$