

Pricing Questions:

- 1) Mark Up: A retailer pays a distributor \$20 for the book and wants a 35% markup on it. What will the retail price to the consumer be?

$$\text{Retail Price} = \frac{\text{Cost}}{1 - \text{Desired return}} = \frac{\$20}{1 - .35} = \frac{\$20}{.65} = \$30.77$$

- 2) Prove the price you received above is indeed a 35% markup.

$$\$30.77 - 35\% \quad 35\% \text{ of } 30.77 = \$10.77$$

$$\underline{\$30.77} - \underline{\$10.77} = \underline{\$20.00}$$

- 3) Marketing managers often use break-even analysis to analyze the relationship between total revenue and total cost to determine profitability at various levels of output. What is the break-even formula? Use the formula to calculate how many compact disc players a dealer must sell if her fixed costs are \$6,000, unit variable costs are \$140, and the selling price is \$200.

$$\text{Break even} = \frac{\text{Fixed cost}}{\text{Price} - \text{Variable cost}} = \frac{\$6,000}{\$200 - \$140} = \frac{\$6,000}{\$60} = \mathbf{100 \text{ units}}$$

- 4) What is the profit equation? If she sells 180 disc players, how much profit in dollars will she make?

$$\text{Profit} = \text{Revenue} - \text{Expenses}$$

$$(180 \times \$200) - (\$6,000 + [180 \times 140]) = \$36,000 - 31,200 = \$4,800$$

- 5) With Value-based pricing the consumer's perception of value drives the pricing and works backward to ensure the costs incurred can meet what the buyer perceives as fair. Let's round up any prices we get.

If an organic pet store was selling high-end protein dog snacks to its dog owners at \$18.50/box and wanted a 40% margin on its selling price, and the pet supplier operated with 15% margins on its selling price to the retail store, what is the selling price to the supplier (sometimes called distributor or wholesaler)?

Markup by store: $\$18.50 \times .6$ (or $\$18.50 - 40\%$) = $\$11.10$

Markup by supplier: $\$11.10 \times .85$ (or $\$11.10 - 15\%$) = $\$9.44$

If the manufacturer wanted a 10% margin on its selling price to the supplier, what would it need to be able to make a box of dog snacks for?

Manufacturer cost: $9.44 \times .9$ (or $\$9.44 - 10\%$) = $\$8.50$

- 6) You have been provided with the following information for a new product being introduced into the consumer market:

Retail selling price of directly competitive products	\$30.00
Retail margin as a percentage of selling price	30%
Wholesale margin as a percentage of selling price	15%
Variable cost per unit	\$5.00
Overhead expense, including marketing expense	\$100,000
Salespeople's salaries and expenses	\$140,000
Advertising and sales promotion	\$500,000

Calculate the manufacturer's break-even volume in units if the new brand is sold at retail for \$30.00.

Wholesale price (the cost to the retailer) $\$30 \times .3$ (or $\$30 - 30\%$) = $\$21.00$

Manufacturer's price (the cost to the wholesaler) $\$21 \times .15$ = $\$17.85$

$$\text{Break even} = \frac{\text{Fixed cost}}{\text{Price} - \text{Variable cost}}$$

$$\frac{\$740,000}{\$17.85 - \$5} = \frac{\$740,000}{\$12.85} = 57,588 \text{ units}$$

CASE: SweetPotato Chips

(Adapted from Lamb, Hair, McDaniel, Faria (2002) The subject is marketing, ScarboroughThomson, Nelson, Pg. 42 - 43)

Sweet potato is a popular root vegetable in the Southern states and Caribbean. Prior to the 1700's it was known as "the potato" and was a staple in France and Spain. It suffered a demotion of sorts when the tubers we now know as potatoes became more popular in the 18th century. The sweet potato's popularity was likely due to the fact that it tastes good, and is highly nutritious. The Center for Science in the Public Interest, an authoritative nutrition advocacy group, says that sweet potatoes are the most nourishing vegetable by a long shot. On a point system scoring for vitamins, minerals, complex carbohydrates, protein, and fiber, sweet potatoes rank higher than their closest competitor (the potato) by 100 points. They lead spinach by slightly more than that, and broccoli by even more. They are also way ahead of carrots, corn, and tomatoes.

With this information, and a business diploma majoring in marketing from OC, Laura Lang (who is both health conscious and a fan of sweet potatoes) came up with an idea for a new snack food. She approached the Women's Enterprise Center for a small business loan and received \$50,000. With this, she bought some used chip-making equipment and contracted with a farmer growing sweet potatoes to purchase most of his next crop. Laura decided she was going to enter the highly competitive packaged food industry with a new, delicious, and nutritious potato chip made from sweet potatoes.

Her new company, Jazz Foods, produces the chips and packages them in a glossy black 200-ml bag. Laura has already obtained a contract with Power Up, a new company that is placing health foods in their vending machines and locating them in gyms and upscale hotels. She is now trying to get into health food and grocery stores via food distributors.

The unusual chips have received an enthusiastic response from one small chain of specialty food stores where they are selling well. However, there's already competition. Dana Alexander, Inc., is producing a fancy, multicolor root mix called Terra Chips, which is 10% yucca and 5% sweet potato (it also happens to come in glossy black bags). Also Frito-Lay is marketing fat-free chips and toying with the idea of "alternative roots". Laura is undeterred, citing the immense size of the potato chip market.

Relevant Data:

Competition:	Terra Chips	200 ml bag	\$3.50 Retail
	Frito Lay	200 ml bag	\$2.79 Retail

Jazz Food Products:

Estimated annual production (200 ml bags)	100,000
Fixed costs for production	\$30,000
Variable costs for production	\$1.00 per bag
Promotions budget set at	\$10,000
Packaging costs	\$1.00 per bag

Trade Channel:

Laura has discovered that the health food stores and Power Up operate with margins of 30% on their selling price. Both buy their consumer packaged goods through food distributors who operate on a 10% margin on their selling price.

The vending machine company has agreed to purchase 50,000 bags of chips and Laura has been assured that the remaining 50,000 bags will be purchased by health food stores and "fast" health food restaurants. The suggested retail price for the chips is \$3.99.

Case answer

1. Based on a retail-selling price of \$3.99, what is Laura's selling price to the food distributor? Show your calculations.

$$\begin{aligned} \$3.99 \times .7 &= \$2.79 \text{ (Wholesale selling price or retail cost)} \\ \$2.79 \times .9 &= \$2.51 \text{ (Laura selling price or Wholesalers cost)} \end{aligned}$$

2. Based on the manufacturer's (Jazz Food's) selling price for the 100,000 bags, what is the break-even point in numbers of bags? In dollar sales? Show your calculations. How could Laura improve her contribution margin?

$$\text{Fixed Cost:} \quad 30,000 + 10,000 = 40,000$$

$$\text{Selling Price} = \$2.51$$

$$\text{VC} = 1.00 + 1.00 = \$2.00$$

$$40,000 / 2.51 - 2.00$$

$$\text{Break-even point} = 78,431 \text{ Units}$$

$$78,431 \times 2.51 = \$196,861.81$$

$$\text{Contribution margin is } \$2.51 - \$2.00 = \$0.51$$

You could reduce expenses or increase price.

3. What will be Jazz Food's expected profit if all of the production is sold?

- a. Revenue

$$\$2.51 \times 100,000 = \$251,000$$

- b. Costs

$$\text{Fixed cost} + \text{Variable Costs} = \text{Total cost}$$

$$(\$30,000 + \$10,000) + (\$2.00 \times \$100,000) = \$240,000$$

- c. Profit

$$\text{Profit} = \text{Revenue} - \text{Costs}$$

$$251,000 - 240,000 = \$11,000$$