Chapter 5: Markup & Markdown

Markup

Businesses buy products at a **cost** price and then markup the products to cover the **expenses (overhead)** of running the business and the desired **profits**. The sum of cost plus markup gives the **selling price**, as shown below. **Markup** is also referred to as **margin** or **gross profit**.

Selling Price = Cost + Markup
$S = C + M$

Markup (since it includes expenses and profits) can be rewritten as follows:

Markup = Expenses + Profits
$M = E + P$

Substituting the expression for markup into the selling price equation gives us:

Selling Price = Cost + Expenses + Profit
$S = C + E + P$

Example 1:
Audiophile Records purchases CDs at a cost of $12 each. Operating expenses of the business are 25% of the cost and the owner requires a profit of 15% of cost. How much is the markup on the CDs? What is the selling price?

(i) To find the markup, we use the information given about expenses and profit:
$M = E + P = (0.25 \cdot C) + (0.15 \cdot C)$
$M = (0.25 \cdot \$12) + (0.15 \cdot \$12)$
$M = 3 + 1.80 = \$4.80$

(ii) To find the selling price, we now add the markup of $4.80 to the cost:
$S = C + M = \$12 + \$4.80 = \$16.80$ per CD

Example 2:
Meteor Lights purchases disco balls for $67.00 each. Operating expenses are 25% of the selling price and the owner requires a profit of 10% of the selling price. How much should the disco balls be sold for?

Operating expenses are 25% of the selling price, so $E = 0.25 \cdot S$. Profits are 10% of the selling price, so $P = 0.10 \cdot S$.
$S = C + 0.25S + 0.10S$
$S = 67 + 0.35\,S$

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