

Marginal Average Cost and Revenue

Learning Objectives

- Compute the average cost and revenue
 - Compute and interpret marginal average cost
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Compute the average cost and revenue

1. The cost to produce x products at a given company is given by $C(x) = 23.41x + 1540$, where cost is in dollars. Find the equation of the average cost $\bar{C}(x)$ for the same product.

2. The revenue from selling x tables is $R(x) = 700x - 0.005x^2$. Find the equation for the average revenue $\bar{R}(x)$ for the tables.

Compute and interpret marginal average cost

- Using the information from Problem (1) above, find the marginal average cost function and evaluate it at 50 units. Interpret the value you obtain.

ANSWER KEY

1. $\bar{C}(x) = 23.41 + \frac{1540}{x}$

2. $\bar{R}(x) = 700 - 0.005x$

3. $\bar{C}'(x) = -\frac{1540}{x^2}$, $\bar{C}'(50) = -0.616$, after producing 50 units, the average cost of the next unit will decrease by approximately \$0.62.