Managerial Accounting

Chapter 2

Cost Behavior

Assumptions in Cost-Behavior Estimation

Changes in total costs can be explained by changes in the level of a single activity.

Cost behavior can adequately be approximated by a linear function of the activity level within the relevant range.

Cost Function

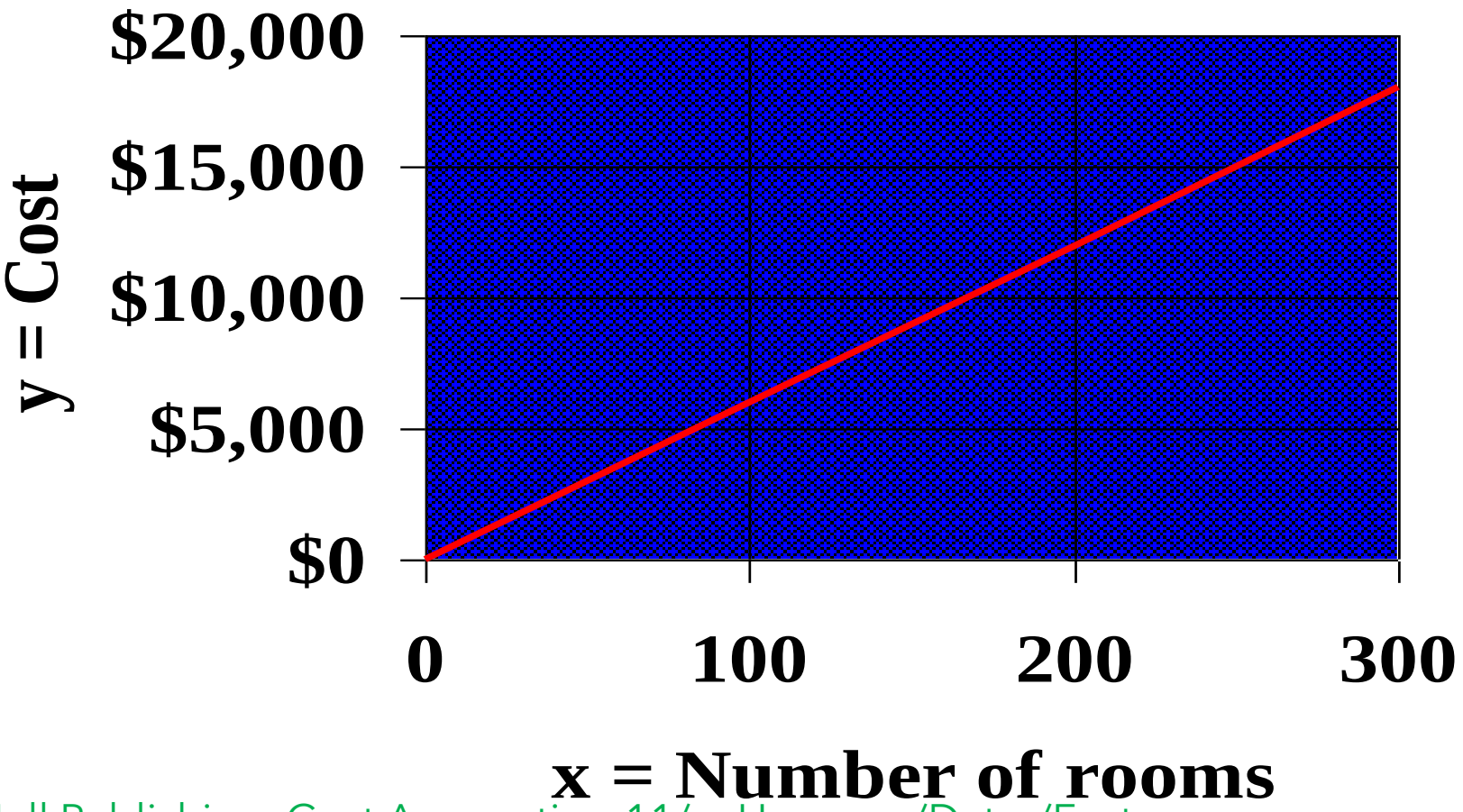
EX.1 La Playa Hotel offers an airline three alternative cost structures to accommodate its crew overnight:

1. $60 per night per room usage

$$y = \$60x$$

The slope of the cost function is $60.

Cost Function



Cost Function

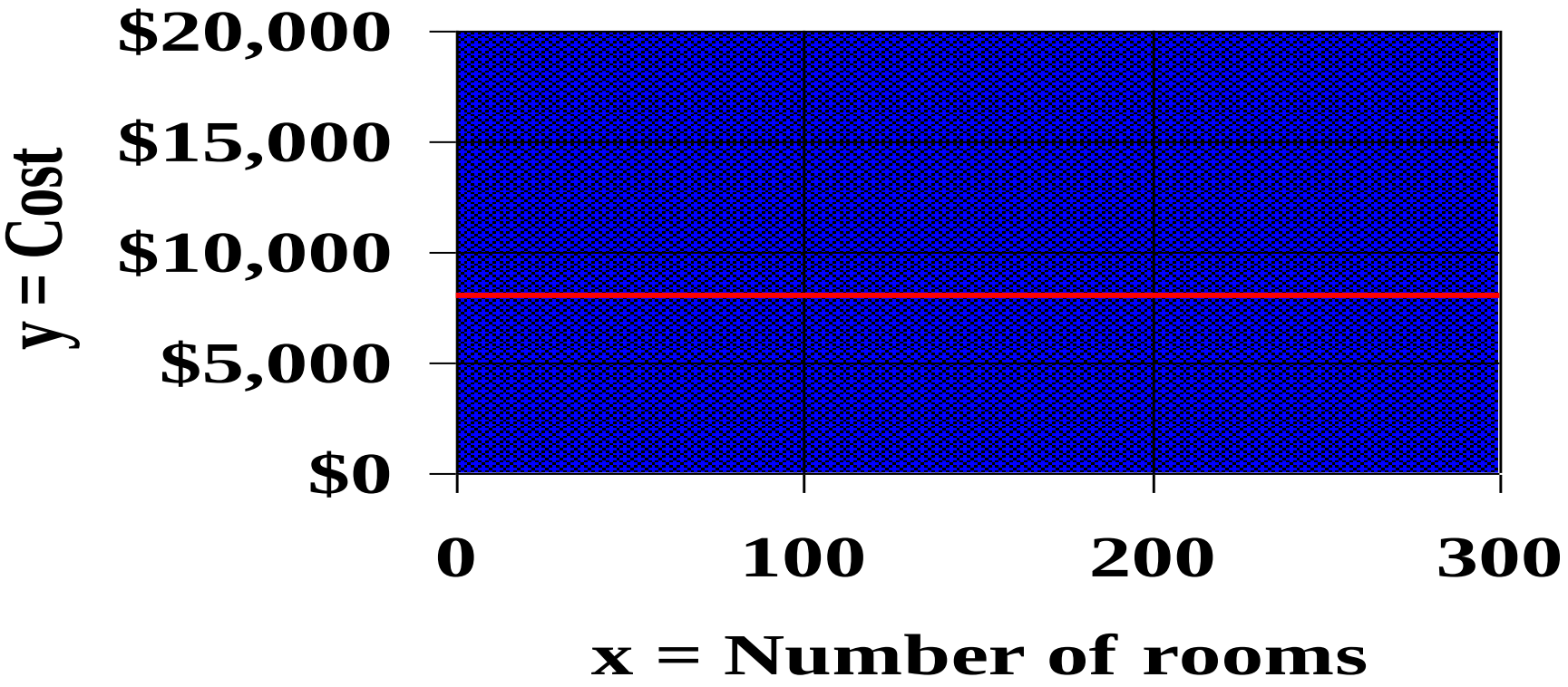
2. $8,000 per month

$$y = \$8{,}000$$

$8,000 is called a constant or intercept.

The slope of the cost function is zero.

Cost Function



Cost Function

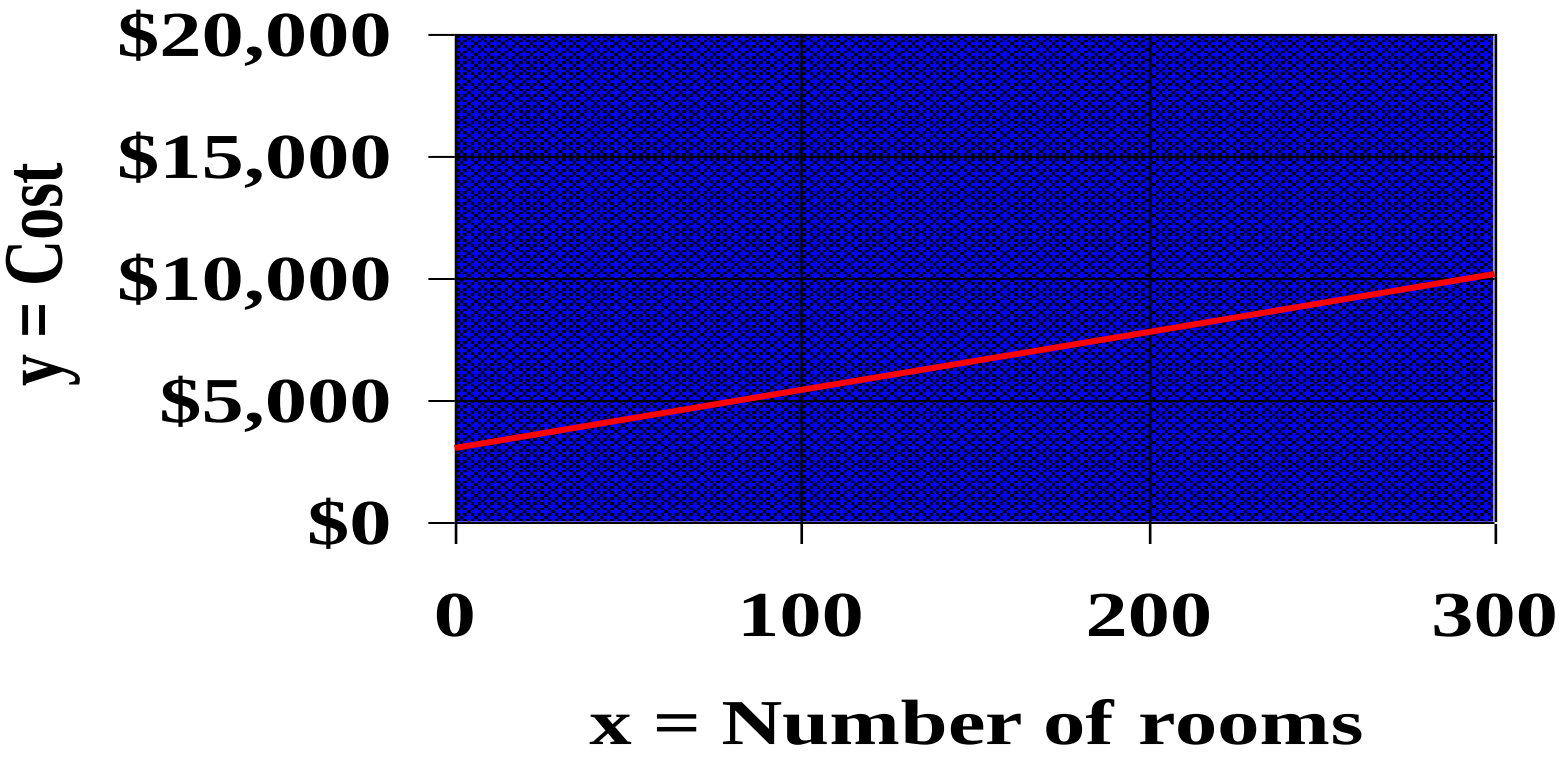
3. $3,000 per month plus $24 per room

This is an example of a mixed cost.

$$y = \$3{,}000 + \$24x$$

$$y = a + bx$$

Cost Function



Cost Analysis

The cost analyst uses experience and judgment to separate total costs into fixed and variable.

EX.2 Avisha & Co. sells software programs.

Total sales = $390,000

The company sold 1,000 programs.

Cost Analysis

Cost of goods sold = $130,000

Manager's salary = $60,000

Secretary's salary = $29,000

Commissions = 12% of sales

Cost Analysis

What is the total fixed cost?

$60,000 + $29,000 = $89,000

What is the fixed cost per unit sold?

$89,000 ÷ 1,000 = $89.00

Cost Analysis

What is the variable cost per unit sold?

Cost of goods sold: $130,000

Commissions: $390,000 × .12 = $46,800

($130,000 + $46,800) ÷ 1,000 = $176.80