[2A]

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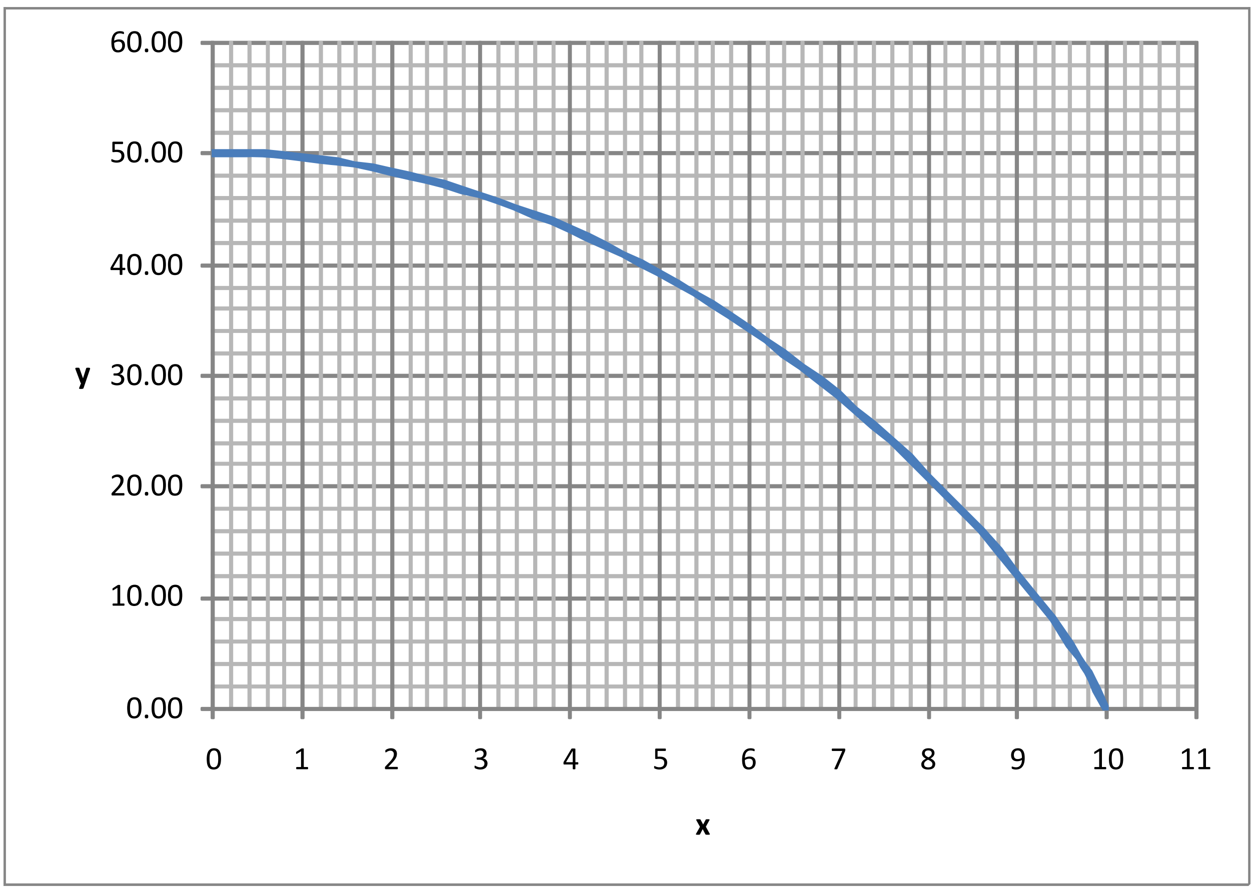
INTERNATIONAL ECONOMICS

A Simple Model of a Perfectly Competitive Firm

Assumptions

1. The firm produces two goods, *x* and *y*.
2. All necessary factors of production are in place and have been paid for.
3. The production possibilities frontier for this firm is given below.
4. The market prices of *x* and *y* are, respectively, €4 and €1 per unit.

Determine the optimum quantities of *x* and *y* produced by this profit-maximizing firm.



Mathematical Appendix

The underlying equations for the above Production Possibilities Frontier are:

$$x = L_1^{\beta}$$
$$y = L_2^{\alpha}$$
$$L_1 + L_2 = L.$$

In the drawing of the above Production Possibilities Frontier the following assumptions have been made:

$$\alpha = 0.85, \quad \beta = 0.50, \quad L = 100.$$