# Production

## Iso-Cost Line

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- The prices of factors are represented by the iso-cost line. It is locus of points representing different combinations of two factors or two baskets of factors which cost same amount of money to the production unit or which can be bought by given amount of money. The drawing of iso-cost line is shown in next no. 4 where on the X-axis we measure units of factor X and on the Y-axis we measure units of factor Y. Now suppose that the firm has Rs 200 to spend on the two factors X and Y. Further suppose that the price of factor X is Rs. 4 per unit and the price of factor Y is Rs. 5 per unit.

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- With outlay of Rs. 200, it can buy 50 units of X or 40 units of Y. Let OB in figure in next slide represent 50 units of X and OA represent 40 units of Y. The straight line AB which join points A and B will pass through all combinations of factors X and Y which the firm can buy with outlay of Rs. 200, if it spends of entire sum on them at the given prices This line AB is called iso-cost line, for whichever combination lying on it the firm buys, it has to incur the same cost or outlay at the given prices. The iso cost line is also called the price line or outlay line.

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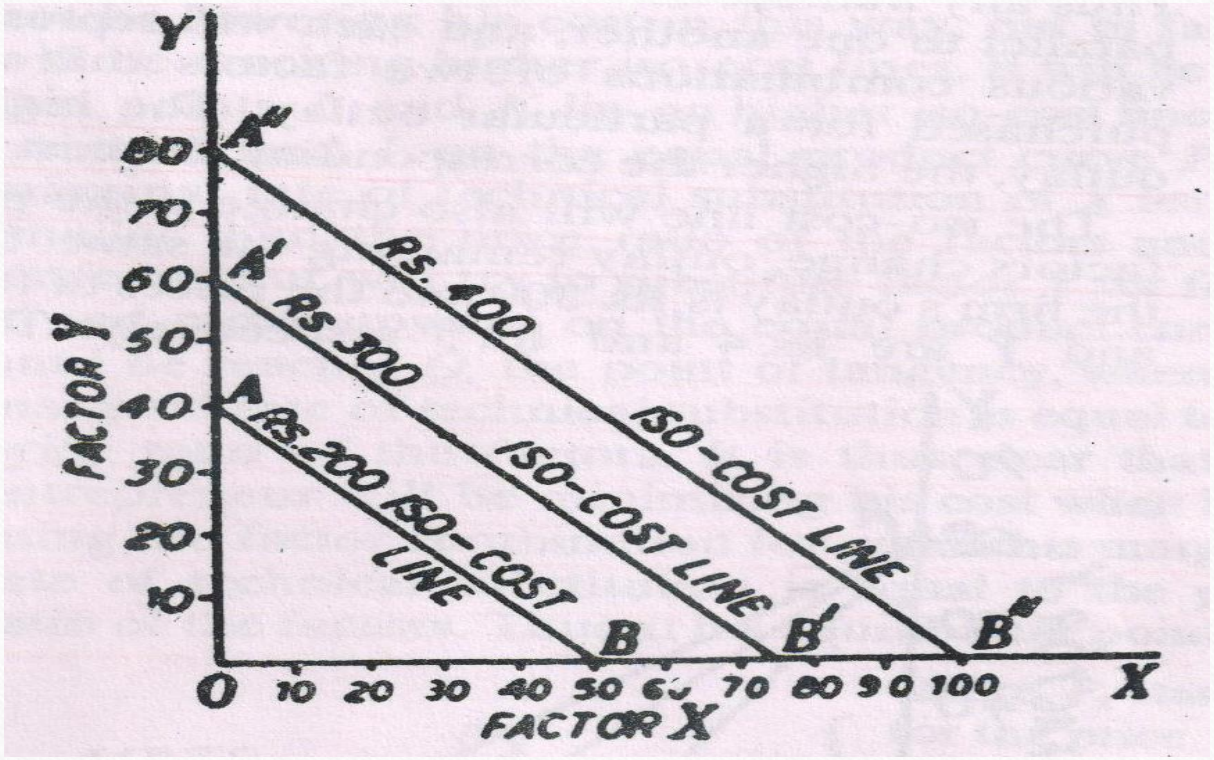
- Figure: iso-cost Lines



# Iso-Cost Line

## ❖ Assumptions

- The iso-cost line is based on following assumptions:

1. The total amount of money which the producer wants to use for production is constant.
2. The producer spends all money on these two factors or basket of factors.
3. The prices of factors are given.

# Iso-Cost Line

- **Equation of Iso-cost Line**:
  - $M = P_x \times Q_x + P_y \times Q_y$
- **Slope of Iso-cost line** is ratio of prices of two factors i.e.,
- **Slope of Iso-cost line = Price of Labour (Factor X) / Price of Capital (Factor Y)**
- the iso-cost line will shift if the total outlay changes given the price of the factors constant. It will shift rightward if outlay increases and vice-versa.
- If Price of labour (factor X) increases, the iso-cost line will become steeper, given total cost and price of capital remain constant.
- Iso-cost line will be flatter if price of capital (Factor Y) increase, given total cost and price of labor remain constant.