



PRESIDENCY COLLEGE
(Autonomous)



*Reaccredited by
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Microeconomics

Law of Variable Proportions



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Law & Assumptions:

In a production process when only one factor is varied and all other factors remain constant, as more and more units of variable factor are employed, the proportion between fixed and variable factors goes on changing.

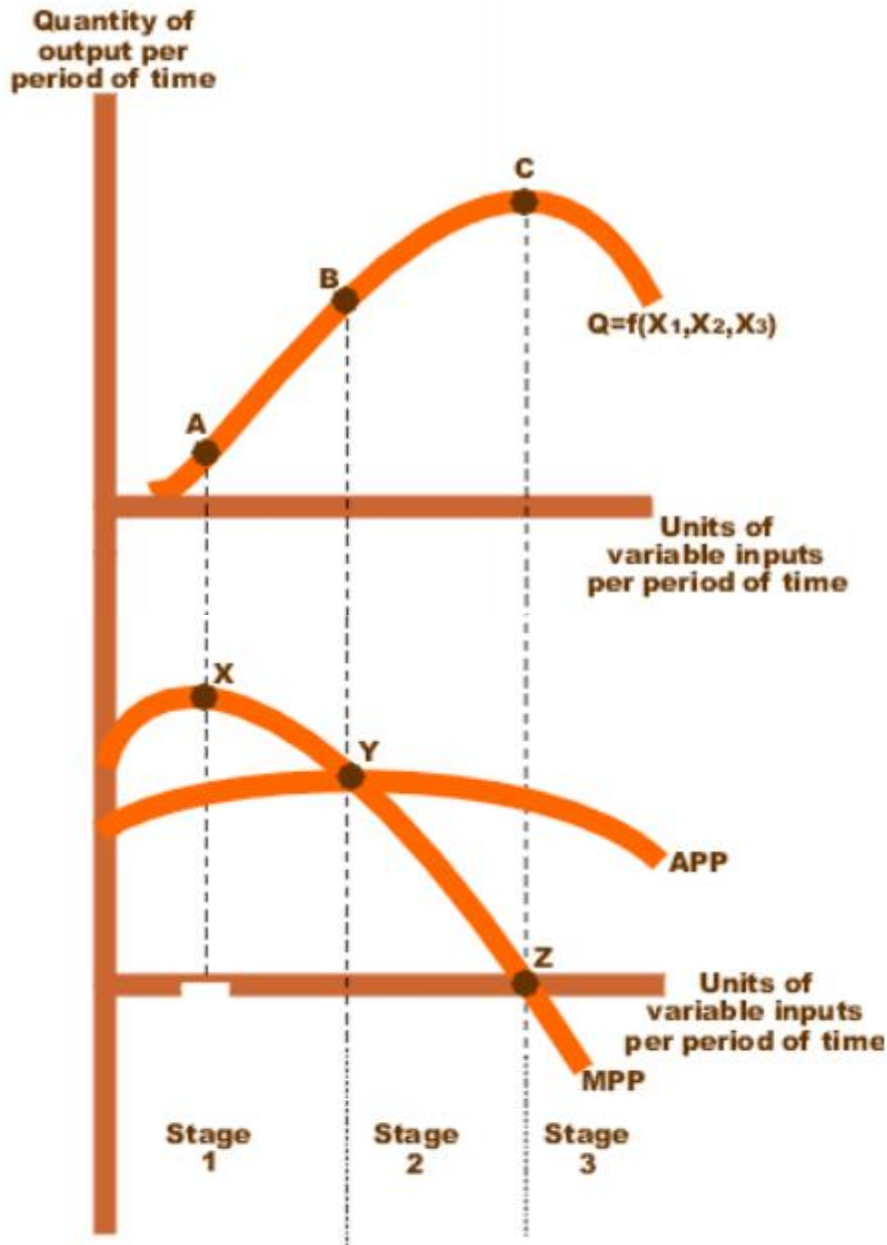
Using more and more units of variable factor (labour) with fixed factor (capital), the total output initially increases at an increasing rate but beyond a certain point, **it increases at a diminishing rate** and ***finally it falls.***



Assumptions:

- (i) The firm operates in the short run.
- (ii) There is no change in technology of production.
- (iii) The production process allows the different factor ratios to produce different levels of output.
- (iv) All the units of variable factor are equally efficient.
- (v) Full substitutability of factors of production is not possible.





LVP- Graphs

X Axis: Variable
Factor(Labour)

Y Axis: TP, AP & MP.

First Graph: TP Vs VF

Second: MP,AP Vs VF

Points: A, B, C and X, Y, Z.



Iso- Quants

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Combination	Units of labour	Units of capital	Output of cloth (metres)
A	1	15	200
B	2	11	200
C	3	8	200
D	4	6	200
E	5	5	200

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Indifference Curves of Production



Iso -Quants

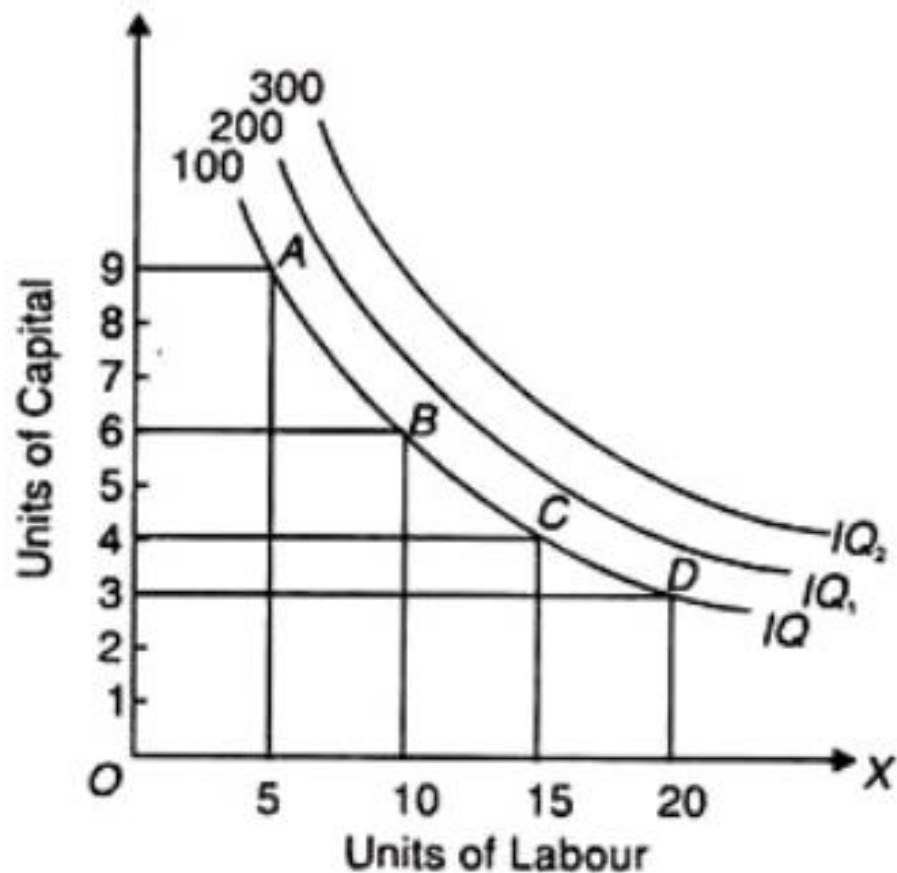
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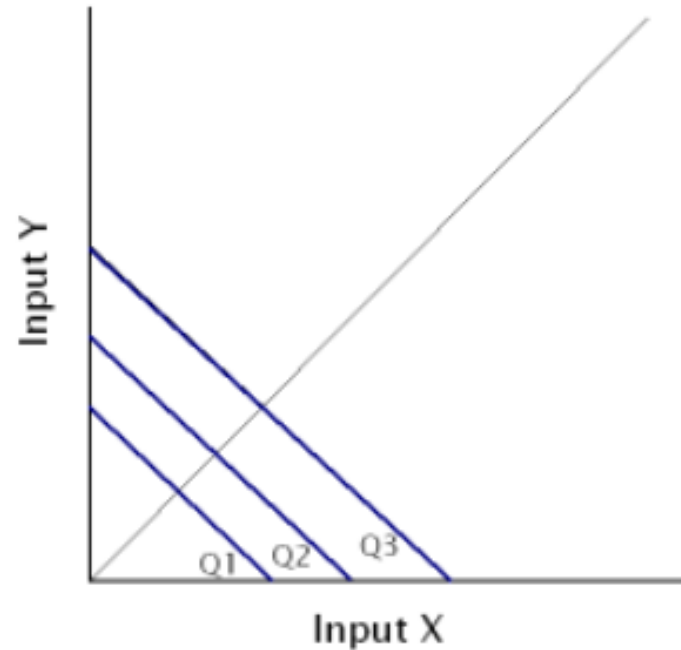
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ISO-Costs



Cost associated with the Inputs- Capital & Labour
Capital- Interest cost, Labour- Wage rate.



Optimizing Production

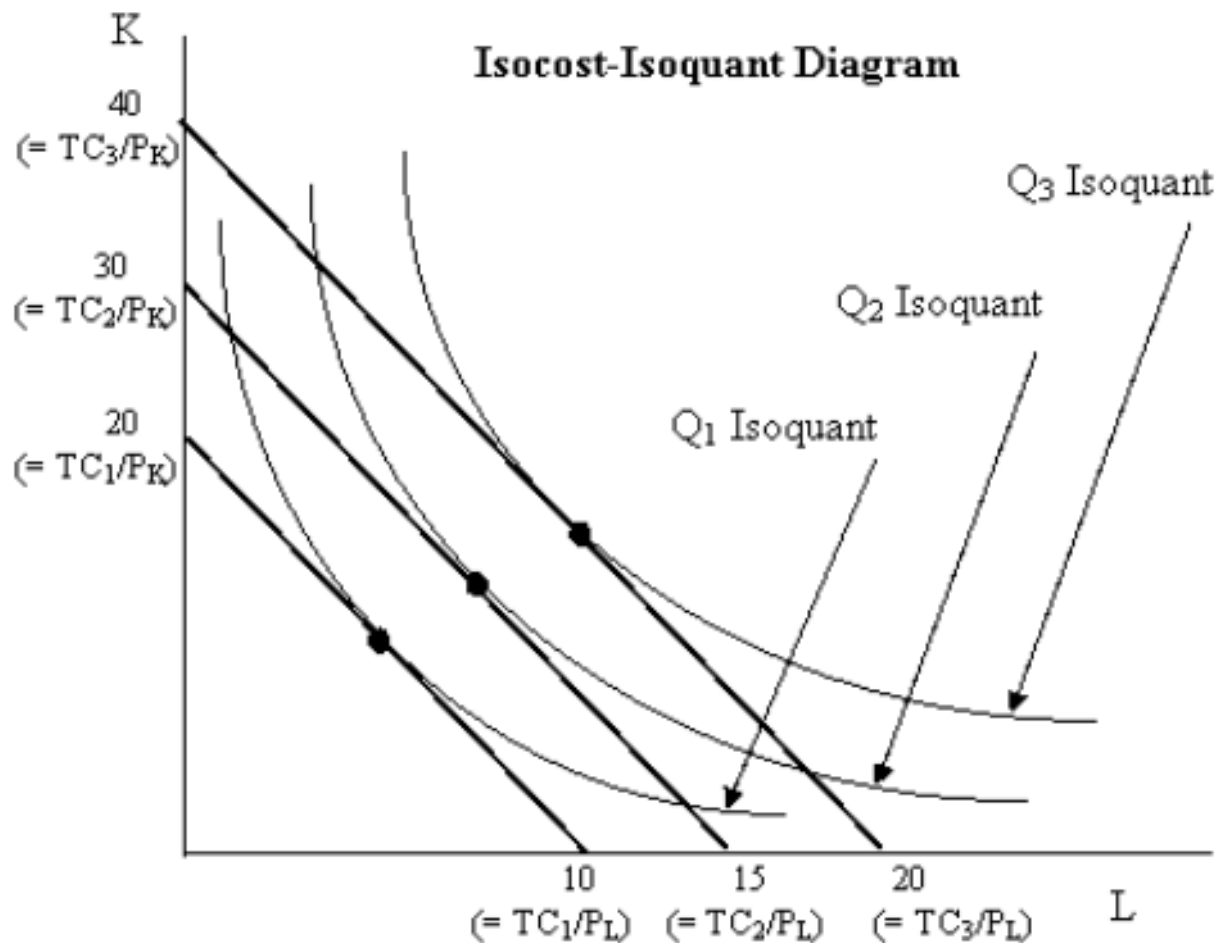
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Question:

How does an iso-quant differ from an indifference curve?

