

The General Production Function

$$q = f(x_1, x_2, \dots, x_n)$$

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Output

Inputs

The General Production Function

$$q = f(1 \text{ egg}, \text{etc}, 0 \text{ trips to bakery})$$

$$q = f(0 \text{ eggs}, \text{etc}, 1 \text{ trip to bakery})$$

The General Production Function

$$q = f(x_1, x_2, \dots, x_n)$$

$$q = f(K, L)$$

The General Production Function

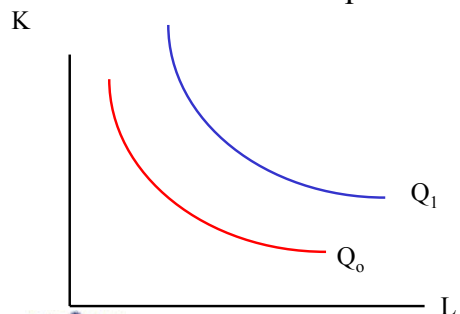
$$q = f(x_1, x_2, \dots, x_n)$$

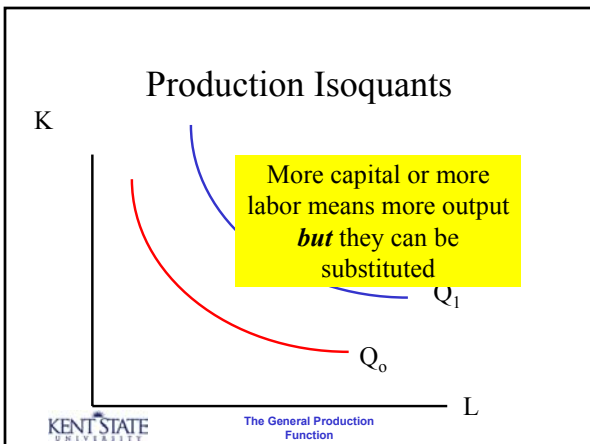
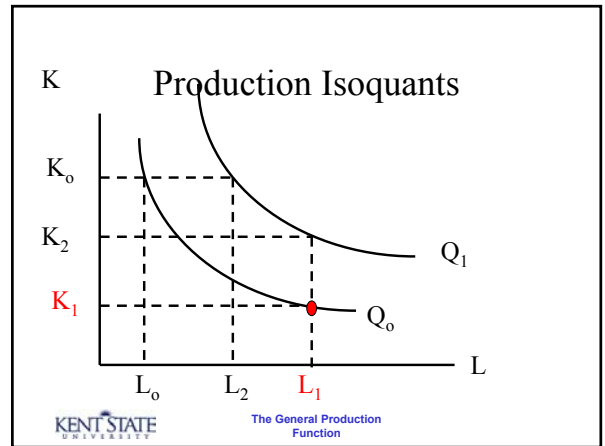
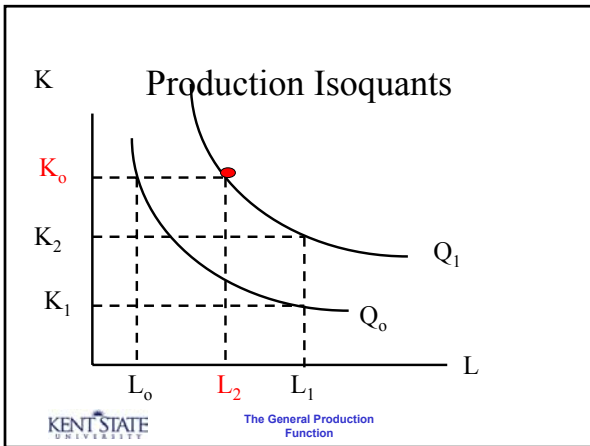
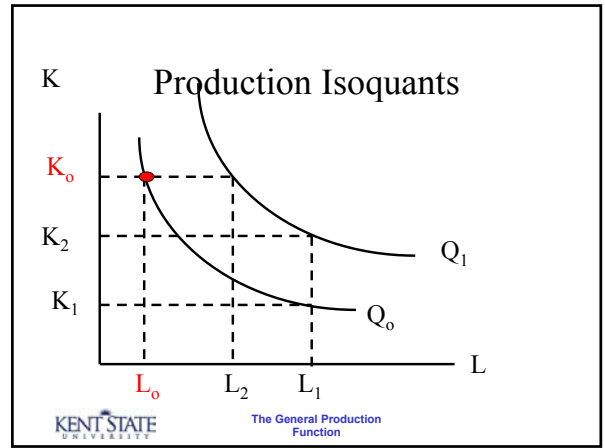
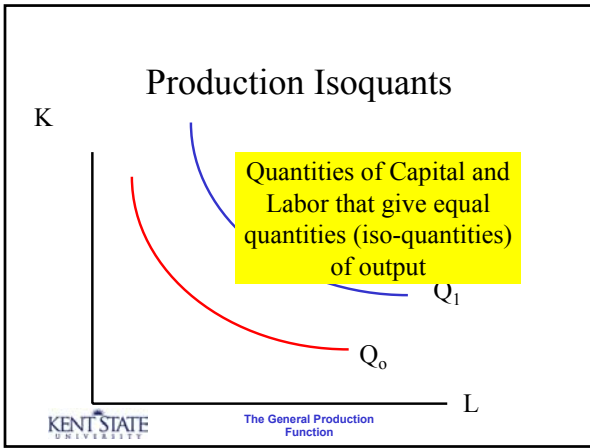
Fixed

$$q = f(K, L)$$

Variable

Production Isoquants





The Cobb-Douglas Production Function

$$Y_t = A_t K_t^\alpha L_t^{1-\alpha}$$

KENT STATE UNIVERSITY The General Production Function

A Tabular Presentation

Units of Output from Different Combinations of Factors of Production						
Number of Machines	Number of Workers					
	1	2	3	4	5	6
1	1000	1414	1732	2000	2236	2449
2	1414	2000	2449	2828	3162	3464
3	1732	2449	3000	3464	3873	4243
4	2000	2828	3464	4000	4472	4899
5	2236	3162	3873	4472	5000	5477
6	2449	3464	4243	4899	5477	6000

End

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