

Homework on EE311 | Due date: Friday 10 May 2019

On production in the long run

Suppose $Q = 100K^{1/2} L^{1/2}$.

- 1) Find MP_L
- 2) Find MP_K
- 3) If price of labor w is 5 Euro per unit and price of capital r is 20 Euro per unit, find the cost minimizing input combination if the firm wants to produce 1,000 units per year.
- 4) Find the demand function for labor and capital, i.e., $K=f(Q, w, r)$ and $L=f(Q, w, r)$
Hint: utilize the cost minimizing rule: $MP_L/MP_K = w/r$
- 5) From 4), find the minimized long run total cost function: $TC(Q)$ provided that $w = 5$ and $r = 20$
Hint: $TC(Q) = wL + rK$
Also, draw its graph.

On game theory, do question 3 and 4 (Frank's Text | Chapter 12 | page 442)

On duopoly, do questions 1, 2,3,4 (Frank's Text | Chapter 13 | page 454)