HW#13 Due May 13, 2021

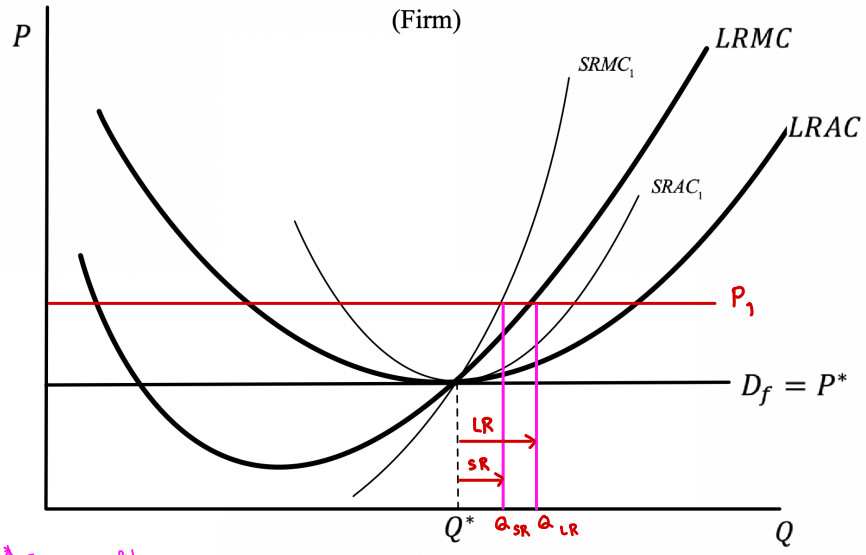
Suppose that the market is in a Long-Run equilibrium where the price is at P^* and each firm produces Q^*. With the given $SRMC_1$ and $SRAC_1$ and $LRMC$ and $LRAC$, the market price increases from P^* to P_1,

a) Show how the firm will change its output in Short Run and Long Run.

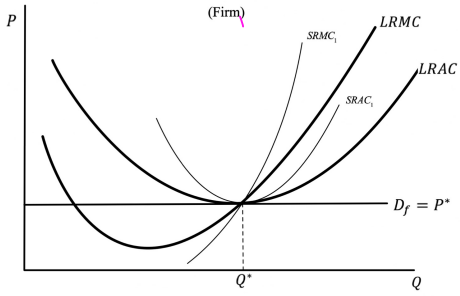
b) Indicate the profit the firm receives in Short Run and Long Run.

c) Explain why the profit in Long Run is bigger than profit in Short Run.

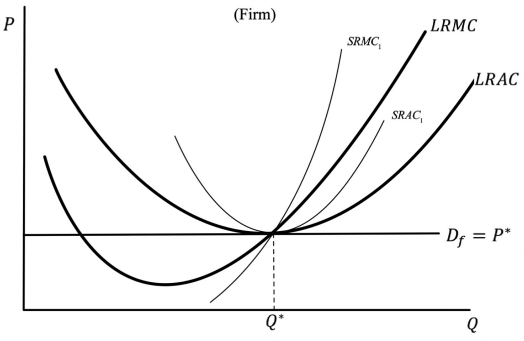
In SR, there is fixed cost: capital (K)
LR, K & L both are variable cost, so firm can adjust minimise cost



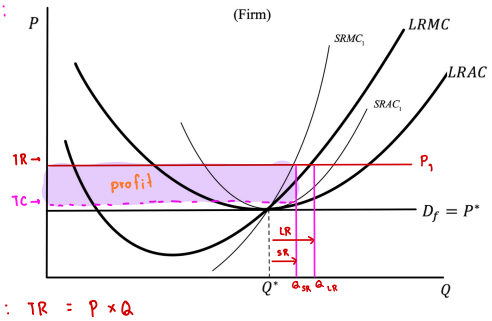
SR: $P^* = MC$
∴ produce at Q^* & no profit (normal profit)



LR:
$P^* = MC$
∴ produce at Q^*
& no profit
(normal profit)
$P = LRMC = LRAC = SRMC = SRAC$



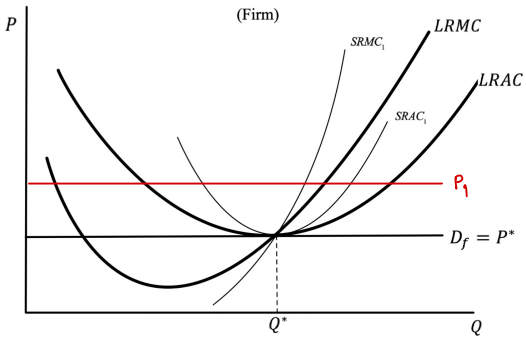
after P↑ :



note: TR = P × Q
TC = AC × Q
π = (P − AC) × Q

P↑ → Q↑ from Q^* to Q_{SR}
→ profit increase: P > SRAC
∴ excess profit

After P↑



P↑ → Q↑ from Q^* to Q_{LR}
→ profit increase: P > LRAC
∴ excess profit
but no long if new entry↑, P will drop to P^* again