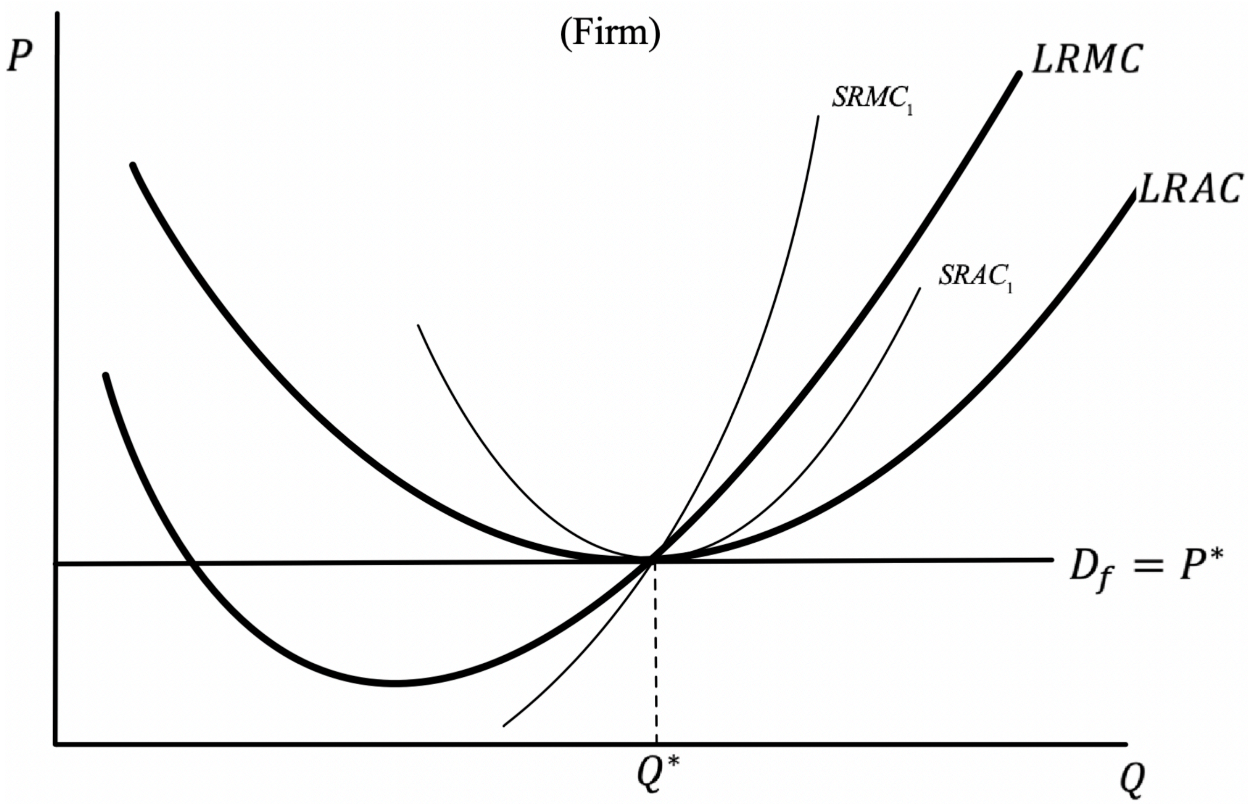
HW#16

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.



Short Run

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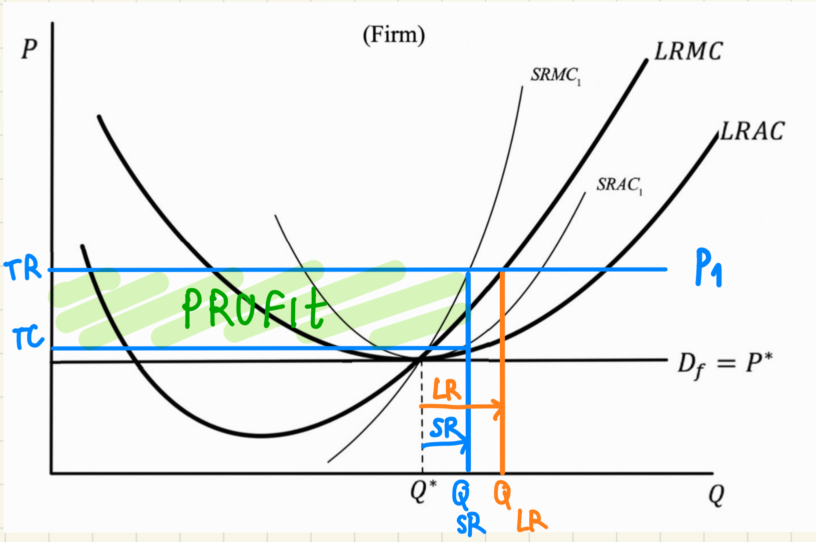
P^* at MC

$\therefore$ produce at Q^*
no profit (normal profit)

After P increase ↑ :



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

P increase so
1) Q increase from Q^* to Q_{SR}
2) profit increase : P > SRAC

$\therefore$ excess profit

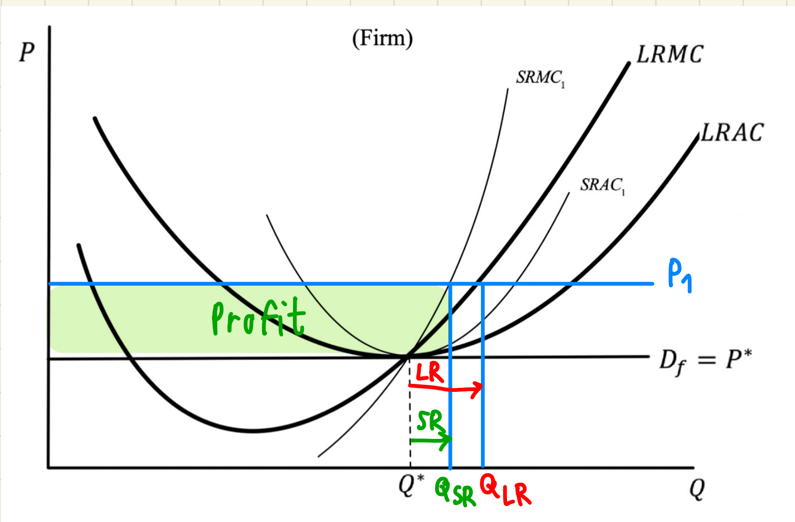
Long Run

P^* = MC

$\therefore$ produce at Q^*
no profit (normal profit)

} P = LRMC = LRAC = SRMC = SRAC

After P increase ↑



P increase so
1) Q increse from Q^* to Q_{LR}
2) Profit increases : P > LRAC
$\therefore$ excess profit

but if new entry increase,
p will decrease to P^* again