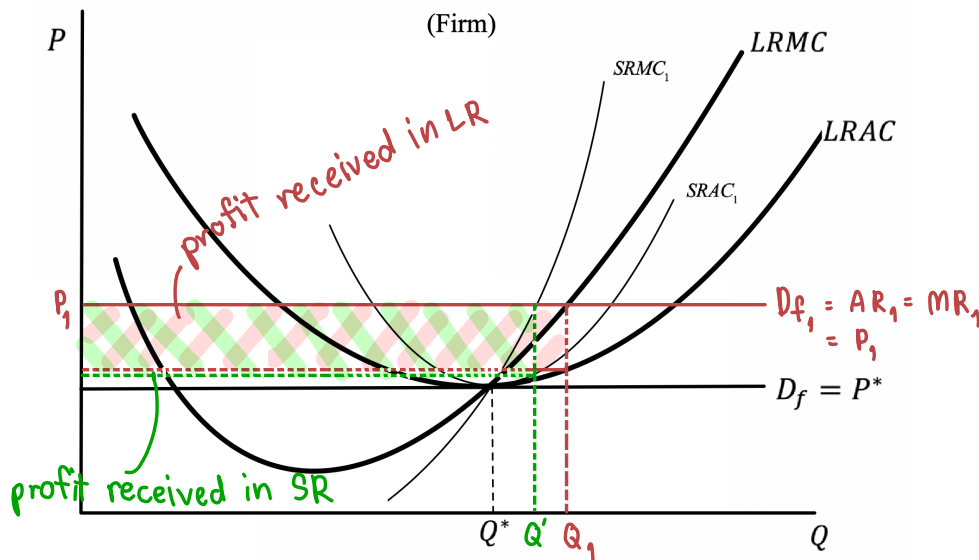


HW#13 Due May 13, 2021

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 ,

- Show how the firm will change its output in Short Run and Long Run.
- Indicate the profit the firm receives in Short Run and Long Run.
- Explain why the profit in Long Run is bigger than profit in Short Run.



profit in LR at $Q_1 >$ profit in LR at $Q' >$ profit in SR at Q'

- The firm will increase its output in Short Run from $Q^* \rightarrow Q'$.
The firm will increase its output in Long Run from $Q^* \rightarrow Q_1$.
- The profit in Long Run is bigger than profit in Short Run because $LRAC$ is lower than $SRAC$ at Q' . But the profit at Q' is not maximum in LR ($MR(Q') > LRMC(Q')$).
So, the profit is maximized at Q_1 where $MR(Q_1) = LRMC(Q_1)$ and slope $LRMC(Q_1)$.