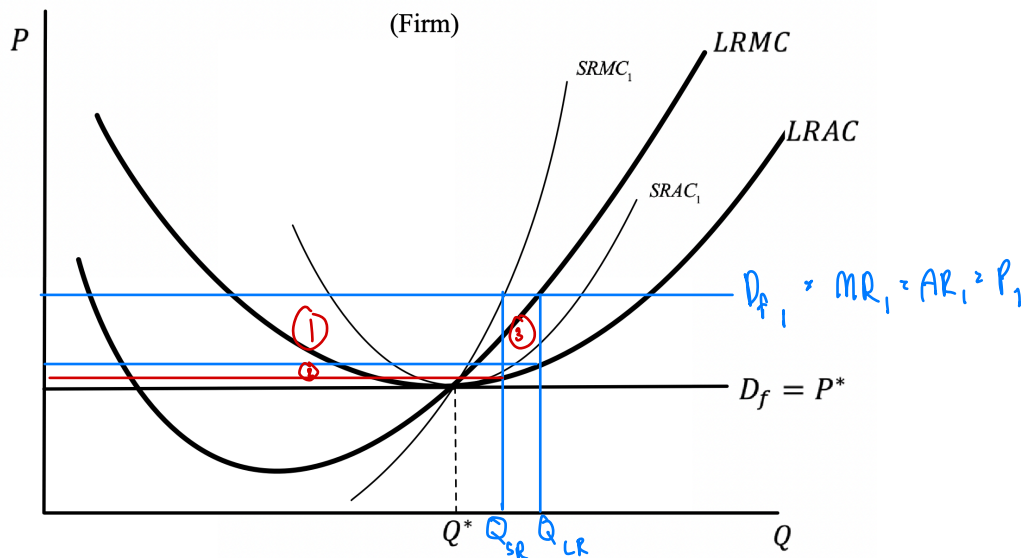


HW#13 Due May 13, 2021

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.



a) the output changes

in short run from Q^* to Q_{SR}

in long run from Q^* to Q_{LR}

b) profit the firm receives

in short run: ① + ②

in long run: ① + ③

c) Long-run profit is more than short-run profit since $LRAC$ is less than $SRAC$, at Q_{SR} is not the maximum profit in long-run because $MR(Q_{SR})$ not equal to $LRMC(Q_{SR})$, so Long-run profit will be maximized at Q_{LR} where $MR(Q_{LR}) = LRMC(Q_{LR})$ and slope of $MR(Q_{LR}) < \text{slope of } LRMC(Q_{LR})$