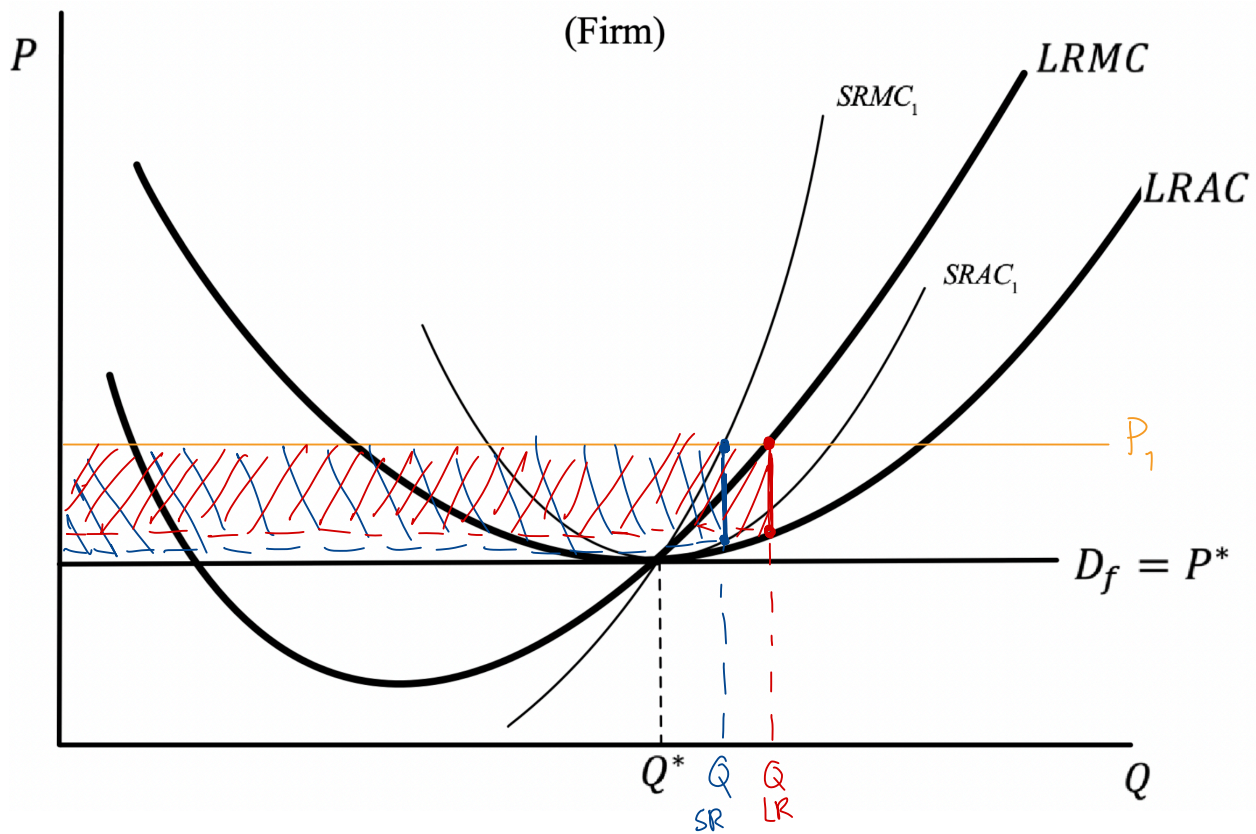


HW#16

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 ,

- 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.



- At $P^* = Q^*$ where both SR and LR produce the same Q , but once P^* increases to P_1 , the Q in SR can produce less than Q in LR.
- The reason that profit in LR is bigger than SR due to the fact that in SR there is a fixed cost even though the firm does not produce any unit. Firm has to pay. But in long-run there is no fixed cost since all the machines are used for a long time. Therefore, in short-run where new firm has to pay for new machine (land, or capital). This will make SR gain less profit than LR.