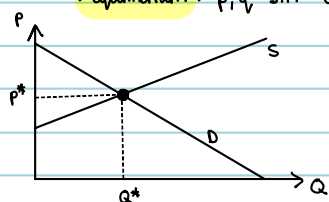


## Chapter 4:

Market outcomes are determined by the forces of supply & demand

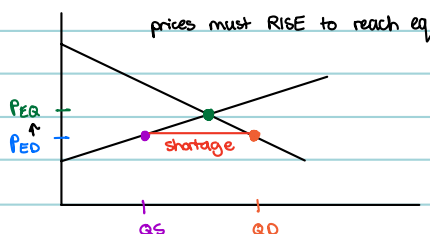
→ equilibrium:  $p, q$  s.t.  $Q_S = Q_D$  ∴ there is no tendency for price to change



$$eq = (q^*, p^*)$$

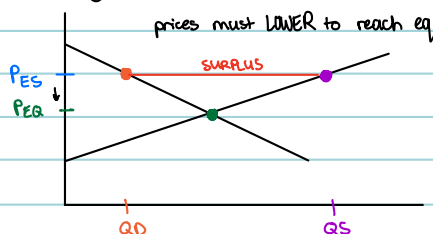
$$\left. \begin{array}{l} Q_S = a - bP \\ Q_D = c + dP \end{array} \right\} eq: a - bP^* = c + dP^*$$

excess demand:  $Q_D > Q_S$



$$ED(P) = Q_D - Q_S$$

excess supply:  $Q_D < Q_S$



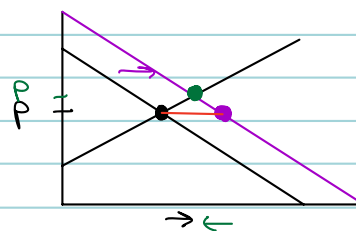
$$ES(P) = Q_S - Q_D$$

Shifters Roadmap: 1. Does the shift affect demand or supply?

2. Draw the shift (is it out or in?)

3. At the old eq. price, is new  $Q_D > Q_S$  or  $Q_S > Q_D$  \*

<p>shortage</p> <p>↓</p> <p>p must ↑</p> <p>↓</p> <p><math>Q_D ↓</math> ∴ <math>Q_S ↑</math></p>	<p>surplus</p> <p>↓</p> <p>p must ↓</p> <p>↓</p> <p><math>Q_D ↑</math> ∴ <math>Q_S ↓</math></p>
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DOUBLE SHIFTS: IF both curves shift in same direction, you immediately know how  $Q$  changes but  $\Delta P$  is dependent on specifics ∴ may = 0

IF the curves shift in opposite directions, a shortage or surplus WILL FORM ∴ p MUST CHANGE

ALWAYS DRAW THE PICTURE!