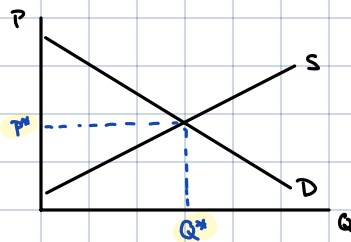# MODULE 4: MARKETS

WHAT IS A MARKET?

- the setting that brings buyers & sellers together
  - buyers demand goods & are willing to pay for them
  - sellers supply goods & want profit
- markets organize these transactions

MARKET EQUILIBRIUM

- condition when $Q_D = Q_S$
- at equilibrium, both sides agree on price
- we can find eqb graphically:

- we can find eqb numerically
  - ⓔⓧ say we have the following Supply & Demand curves
    $$Q_D = 80 - \tfrac{1}{2}P$$
    $$Q_S = P - 10$$

  (1) set $Q_D = Q_S = Q$
    $$Q = 80 - \tfrac{1}{2}P$$
    $$Q = P - 10$$

  (2) solve for P
    $$P - 10 = 80 - \tfrac{1}{2}P$$
    $$1.5P = 90$$
    $$P = {}^{90}/_{1.5}$$
    $$P^* = 60$$

  (3) Plug in Price to either S or D equation to find Q^*
    $$Q^* = 80 - \tfrac{1}{2}(60)$$
    $$Q^* = 80 - 30$$
    $$Q^* = 50$$

- what happens when we are not in eqb
  - $P' > P^*$, we have excess supply $(Q_D < Q_S)$
  - $P^2 < P^*$, we have excess demand $(Q_D > Q_S)$