

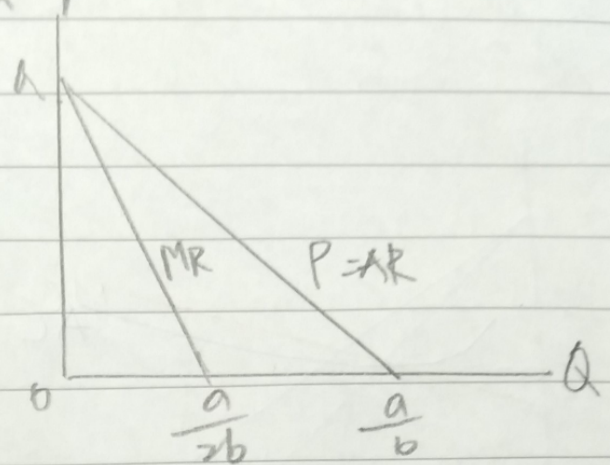
① 假設獨占市場的需求曲線為線性

$$P = a - bQ \quad \text{求 } TR, MR, AR$$

$$TR = P \cdot Q = (a - bQ) \cdot Q = aQ - bQ^2$$

$$AR = \frac{TR}{Q} = \frac{aQ - bQ^2}{Q} = a - bQ$$

$$MR = \frac{dTR}{dQ} = a - 2bQ$$



→ 假設獨占市場的需求曲線為線性，即 $P = a - bQ$ ，追求利潤最大化，均衡價格 & 數量 ($MC = C$)

$$\text{Max } \pi = TR - TC$$

$$\frac{d\pi}{dQ} = MR - MC = 0$$

$$MR = MC$$

$$TR = P \cdot Q - TC(Q) \Rightarrow MR = MC$$

$$\frac{d(a - bQ)Q}{dQ} = a - 2abQ$$

$$a - 2bQ = C$$

$$Q^* = \frac{a - C}{2b}, \quad P^* = a - b\left(\frac{a - C}{2b}\right) = \frac{2a - a + C}{2} = \frac{a + C}{2}$$

