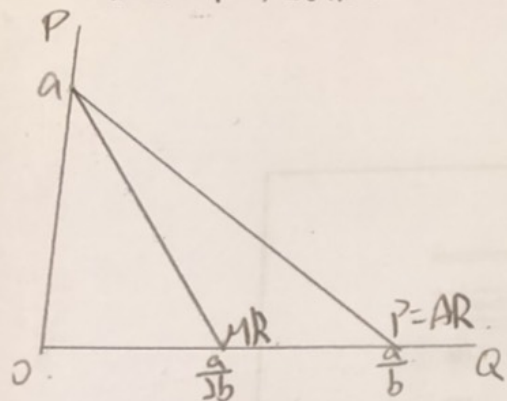


假設獨佔市場的需求曲線為線性, $P = a - bQ$, TR , MR , AR .

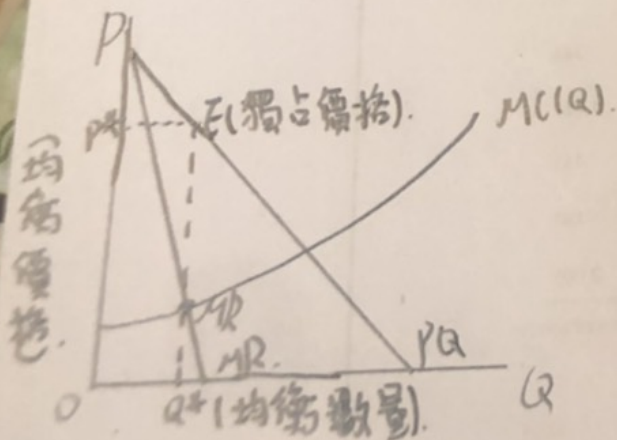


$$TR = P \cdot Q = (a - bQ) \cdot Q = aQ - bQ^2$$

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

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

假設獨佔市場的需求曲線為線性, 即 $P = a - bQ$, 追求利潤極大化, 均衡價格與數量, $MC = c$.



$$\max \pi = TR - TC$$

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

$$MR \stackrel{Q^*}{=} MC \text{ (產出水準)}$$

$$TR = P \cdot Q - TC(Q) \Leftrightarrow MR \stackrel{Q^*}{=} MC$$

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

$$a - 2bQ = c$$

$$Q^* = \frac{a - c}{2b}$$

$$P^* = a - b \left(\frac{a - c}{2b} \right)$$

$$= \frac{2a - a + c}{2} = \frac{a + c}{2}$$