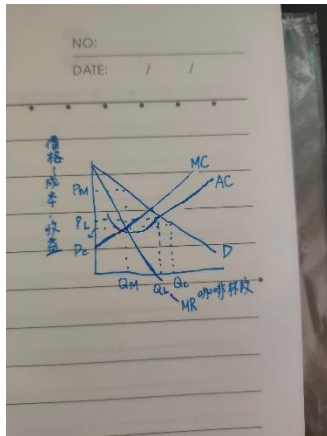


1. 如下圖所示，悟空會根據平均成本 (AC) 曲線與需求曲線 (D) 的交點訂出  $(P_L, Q_L)$  的價量組合。悟能會根據  $MR=0$  決定出  $Q_C$  的產量，並將價格訂在  $P_C$ 。悟淨會根據  $MR=MC$  決定出  $Q_M$  的產量，並將價格定為  $P_M$ 。



- 2.a. The monopolist will operate where  $MR = MC$ . With demand  $P = a - bQ$ , marginal revenue is given by  $MR = a - 2bQ$ . Setting this equal to marginal cost implies  $a - 2bQ = c + eQ$ ,  $Q = (a - c) / (2b + e)$ . At this quantity price is  $P = a - b((a - c) / (2b + e))$ ,  $P = (ab + ae + bc) / (2b + e)$ .
- b. Since  $Q = (a - c) / (2b + e)$ , increasing  $c$  or decreasing  $a$  will reduce the numerator of the expression, reducing  $Q$ .
- c. Since  $e > 0$  and  $P = (ab + ae + bc) / (2b + e)$ , increasing  $a$  will increase the numerator for this expression. This will therefore increase the equilibrium price.

3. (A) 利用  $MR = MC$ ,  $120 - 2q = 4q$ , 解出  $q^* = 20$ , 代回需求函數解得  $P^* = 100$ 。  $\pi^* = 100 \times 20 - 2(20)^2 = 1200$ ,  $E_d = 100/20 = 5$ ,  $MC^* = 4q^* = 80$ , 獨占力  $= (100 - 80) / 100 = 0.2$

