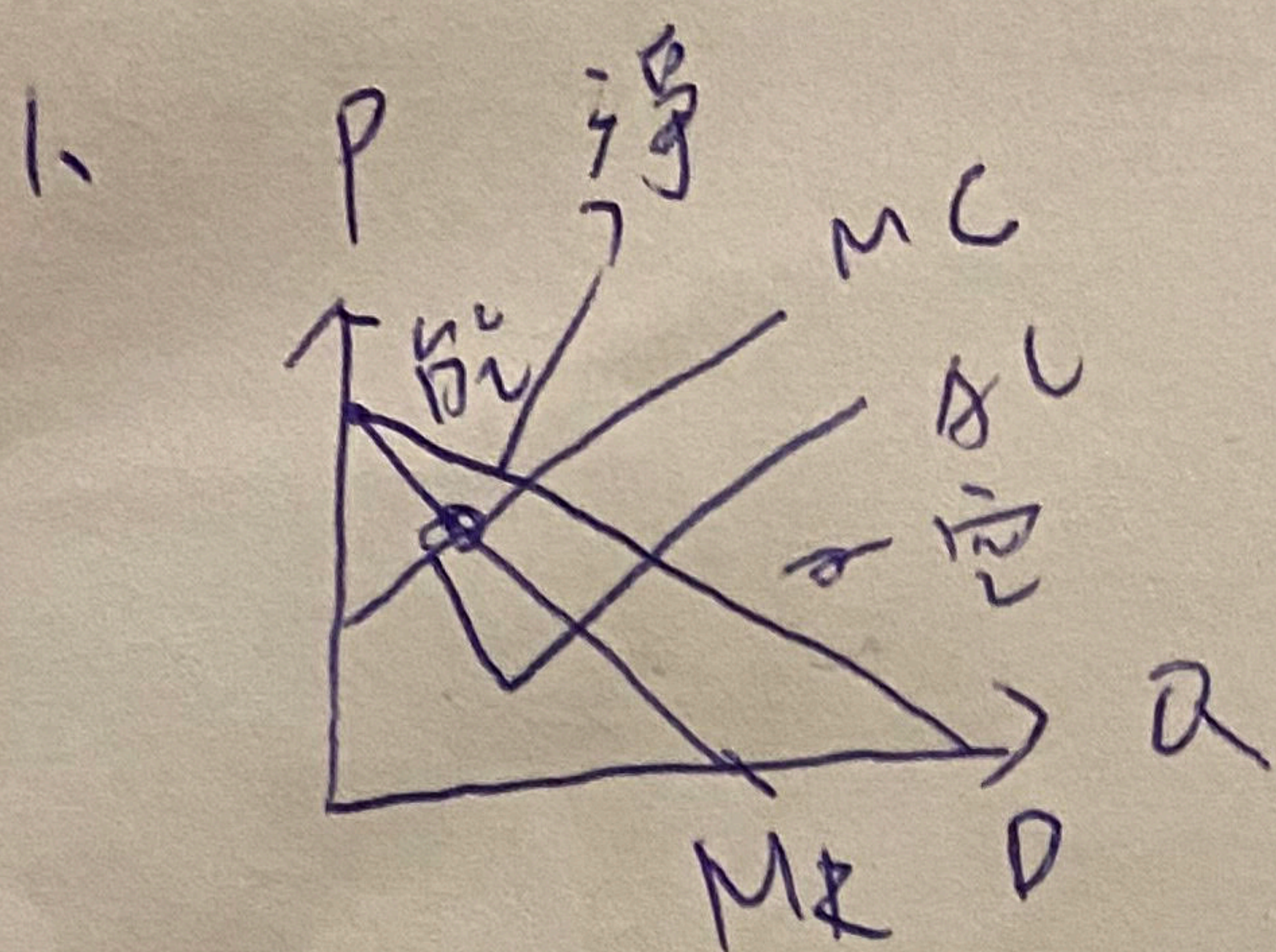


(11)



$$\begin{aligned} P &= AC \\ \text{MR} &= MC \\ \therefore P &= MR = MC \end{aligned}$$

2. (a) $a - 2bQ = c + eQ$

$$Q = \frac{a-c}{2b+e}$$

b) $Q = \frac{a-c}{2b+e}$

c) $e \geq 0 \quad P = \frac{a+b(a-c)+bc}{2b+e}$

$$P = a - b \left[\frac{a-c}{2b+e} \right]$$

$$P = \frac{ab + ae + bc}{2b+e}$$

3. A) $MR = MC$

$$120 - 2q = 4q$$

$$q = 20 \Rightarrow P = 100$$

$$\pi = 100 \times 20 - 2 \times 20^2 = 1200$$

$$Ed = \frac{100}{20} = 5 \quad MC = 4q = 80$$

$$\text{Profit} = \frac{(100 - 80)}{100} = 0.2$$

B) $20 \times \frac{4}{2} = 40$

C) $P = MC \quad 120 - 4 = 4q \quad q = 24$

$$96 \times 24 - 2 \times 24^2 = 1152 \quad P = 96$$

D) $P = AC$

$$120 - 4 = 2q \quad q = 40$$

$$MC \text{ is } 80 \Rightarrow 0$$

$$TV = 80 \times 40 - 2 \times 40^2 = 0$$

$$(120 - 80) \times \frac{40}{2} = 800$$

$$1440 - 800 = 640$$