

No.  
Date 3.

$$\textcircled{1} P = MC \Rightarrow 10 - q = 5 \quad \begin{cases} q = 5 \\ P = 5 \end{cases}$$

$$\pi = \frac{5 \times 5}{2} + 5 \times 5 - 5 \times 5 = 12.5 = \pi_s$$

$$CS = 0, \pi_s = 12.5$$

$$\textcircled{2} \pi = (100 - q_1)q_1 + (100 - q_2)(q_2 - q_1) - (10 + 10q_2) \\ = 100q_1 - q_1^2 + 100q_2 - 100q_1 - q_2^2 + q_1q_2 - 10 - 10q_2$$

$$\begin{cases} -2q_1 + q_2 = 0 & q_1 = 30 & P_1 = 70 \\ q_1 - 2q_2 = -90 & q_2 = 60 & P_2 = 40 \end{cases}$$

$$\pi = 70 \times 30 + 40 \times 30 - 10 - 10 \times 60 = 2690$$

$$\textcircled{3} MR_F = 100 - 2q_F \quad MC = 20$$

$$100 - 2q_F = 20, \quad P_F = 60, \quad q_F = 40$$

$$MR_D = 40 - q_D \quad MC = 20$$

$$40 - q_D = 20 \quad q_D = 20 \quad P_D = 30$$

$$\pi = 60 \times 40 + 30 \times 20 - 10 + 20 \times 60 = 1790$$

$$E_F = -1 \times \frac{60}{40} = -1.5$$

$$E_D = -2 \times \frac{30}{20} = -3$$