

2 SUBJUEGO

$$|S_1| = 4$$

$$|S_2| = 3$$

JUEGO Completo

	L	M	R
AS	6, 10*	3, 8	2, 6
AK	6, 10*	2, 1	4, 12*
BS	5, 0	5, 0	5, 0
BK	5, 0	5, 0	5, 0

O.P.

(AS, L)

(AK, L)

(AK, R)

$$EN = \left\{ \begin{array}{l} (AS, L) \\ (BS, M) \\ (BS, R) \\ (BK, M) \\ (BK, R) \end{array} \right\}$$

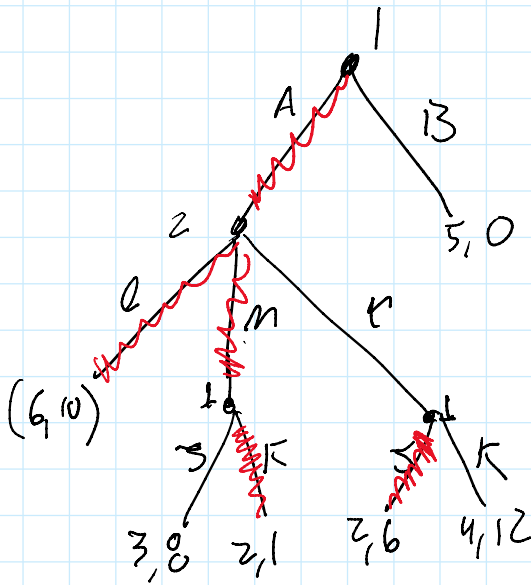
SUBJUEGO PROPIO

	L	M	R
S	<u>6, 10</u>	<u>3, 8</u>	2, 6
K	<u>6, 10</u>	2, 1	<u>4, 12</u>

$$EN = \left\{ \begin{array}{l} (S, L) \\ (K, R) \end{array} \right\}$$

$$EPS: \left\{ \begin{array}{l} (AS, L) \\ (BK, R) \end{array} \right\}$$

$$\text{EPS: } \left\{ \begin{array}{l} (A, L) \\ (B, K, R) \end{array} \right\}$$



$$\text{EPS: } (B, K, R)$$

$$P = 1 - Q$$

$$Q = q_1 + q_2 + \dots + q_{10}$$

$$a) \pi_i = (1 - q_1 - q_2 - \dots - q_{10}) q_i$$

$$\frac{\partial \pi_i}{\partial q_i} = 1 - \underbrace{q_1 - \dots - q_{10}}_{10} - q_i = 0$$

EN UN E.Q. Simétrico $q_i = q_i^* \quad \forall i$

$$1 - 11q_i^* = 0$$

$$q_i^* = \frac{1}{11}$$

$$EN = \left(\frac{1}{11}, \dots, \frac{1}{11} \right)$$

1, 1, 1, 1, 1, 1, 1, 1, 1, 1

$$\pi_i = \left(1 - 10 \cdot \frac{1}{11}\right) \frac{1}{11} = \left(\frac{1}{11}\right)^2 = \frac{1}{11^2}$$

$$\textcircled{b} P = 1 - q_{tc} - q_{to}$$

$$\pi_i = (1 - q_i - q_{-i}) q_i$$

$$\frac{\partial \pi_i}{\partial q_i} = 1 - 2q_i - q_{-i} = 0$$

EN EQ. SIMETRICO $q_i = q_{-i} = q^*$

$$1 - 2q^* - q^* = 0$$

$$1 = 3q^*$$

$$\frac{1}{3} = q^*$$

$$\pi_i = (1 - 2q^*) q^* = \left(1 - \frac{2}{3}\right) \left(\frac{1}{3}\right) = \frac{1}{9}$$

$$\pi_{\text{cada empresa cartel}} = \frac{1}{81}$$

$$\text{vs } \frac{1}{11^2}$$

$$\pi_{io} = 1/9$$

Abdul 2018

$$q_A = 4 - 3P_A + 2P_B$$

$$q_B = 4 - 3P_B + 2P_A$$

$$a) \pi_A = (4 - 3P_A + 2P_B) P_A$$

$$\pi_B = (4 - 3P_B + 2P_A) P_B$$

$$\frac{\partial \pi_A}{\partial P_A} = 4 - 6P_A + 2P_B = 0 \Rightarrow P_A = \frac{4 + 2P_B}{6}$$

$$\frac{\partial \pi_A}{\partial P_A} = 4 - 6P_A + 2P_B = 0 \Rightarrow P_A = \frac{4 + 2P_B}{6}$$

$$\frac{\partial \pi_B}{\partial P_B} = 4 - 6P_B + 2P_A = 0 \Rightarrow P_B = \frac{4 + 2P_A}{6}$$

$$P_A = \frac{4 + 2\left(\frac{4 + 2P_A}{6}\right)}{6} = \frac{4}{6} + \frac{1}{18}(4 + 2P_A)$$

$$P_A = \frac{12 + 4 + 2P_A}{18} \Rightarrow 18P_A = 16 + 2P_A$$

$$16P_A = 16$$

$$\boxed{P_A^{EN} = 1}$$

$$\boxed{P_A^{EN} = 1}$$

$$q_A^{EN} = 4 - 3 + 2 = 3$$

$$q_B^{EN} = 3$$

$$\boxed{\pi^A = 3}$$

$$\boxed{\pi^B = 3}$$

⑤ MAX π^A s.t. $\pi^B \geq \bar{\pi}$ ✓

$$\text{MAX } (4 - 3P_A + 2P_B)P_A + \lambda((4 - 3P_B + 2P_A)P_B - \bar{\pi})$$

$$\frac{\partial \mathcal{L}}{\partial P_A} = 4 - 6P_A + 2P_B + \lambda(2P_B) = 0$$

$$\frac{\partial \mathcal{L}}{\partial P_B} = 2P_A + \lambda(4 - 6P_B + 2P_A) = 0$$

$$\frac{\partial J}{\partial P_B} = C_A + \lambda(4 - 6P_B + C_A) - U$$

$$\frac{4 - 6P_A + 2P_B}{2P_A} = \frac{2P_B}{4 - 6P_B + 2P_A}$$

$$\frac{4 - 6 + 2}{2}$$

$$\frac{2}{4 - 6 + 2}$$

$$0 \neq$$

$$\frac{2}{0}$$

No es O.P. e l
E.N.

$$q_A = 200 - P_A$$

$$q_B = 300 - P_B - P_A$$

$$CT = 10(q_A + q_B)$$

$$q_A = 200 - P$$

$$q_B = 300 - 2P$$

$$a) \pi = (200 - P_A)P_A + (300 - P_B - P_A)P_B - 10 \left(\underbrace{200 - P_A}_{q_A} + \underbrace{300 - P_B - P_A}_{q_B} \right)$$

$$\frac{\partial \pi}{\partial P_A} = 200 - 2P_A - P_B + 10 + 10 = 0$$

$$\frac{\partial \pi}{\partial P_B} = 300 - 2P_B - P_A + 10 = 0$$

$$220 - 2P_A - P_B = 0$$

$$310 - 2P_B - P_A = 0$$

$$-440 + 4P_A + 2P_B = 0$$

x
(-2)

$$-440 + 4P_A + 2P_B = 0 \quad \checkmark$$

$$-130 + 3P_A = 0$$

$$P_A = 130/3$$

$$P_B = 220 - 2\left(\frac{130}{3}\right)$$

(b) $(200-P)P + (300-2P)P - 10(500-3P) \quad \text{s. } P < 150$

$(200-P)P - 10(200-P) \quad \text{s. } 150 < P < 200$

0

s. $P \geq 200$

$$\frac{\partial \pi}{\partial P} = 200 - 2P + 300 - 4P + 30 = 0$$

$$530 = 6P$$

$$P = 530/6 = 88.33$$

$$\pi =$$

$$q_A = 200 - P$$

$$q_B = (300 - 2P)$$

~~$$\frac{\partial \pi}{\partial P} = 200 - 2P + 10 = 0$$~~

~~$$\frac{210}{2} = P = 105$$~~

NOV 2017

1) $P_A > P_B$

$$IMg_A = CMg_A$$

$$IMg_B = CMg_B$$

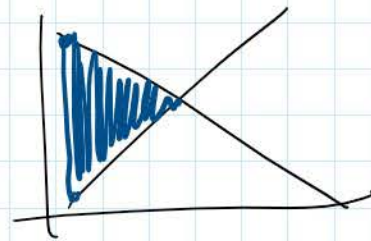
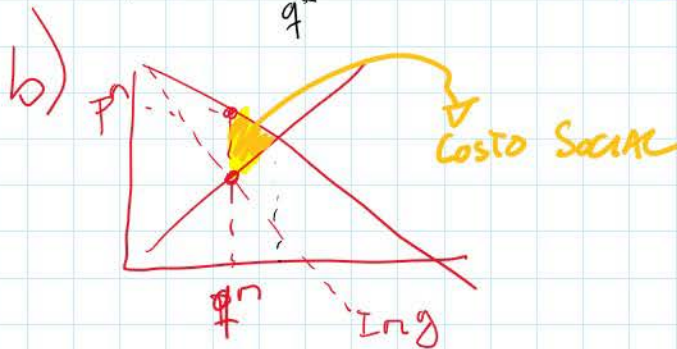
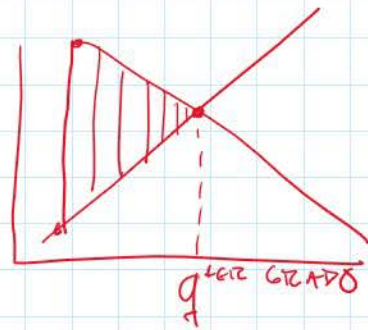
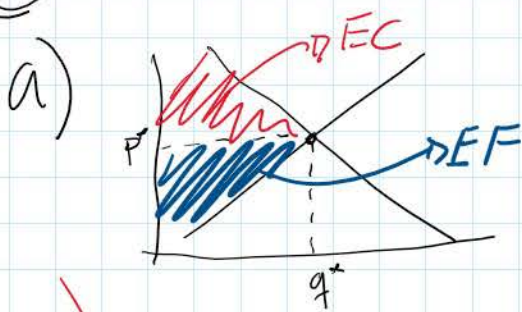
a) $IMg_A = IMg_B$

b) $IMg_A > IMg_B$

c) $IMg_A < IMg_B$

d) ~~alternativa~~ ~~ninguna~~

② $P = 100 - Q$ $CT = 10Q$.



c) Falso

d) Falso

ABRIL 2018

$$CT_i = 10q_i$$

$$Q = 210 - P$$

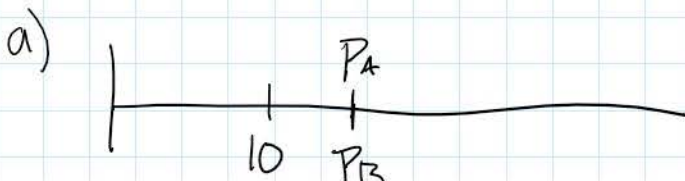
⑦ $MR_B(P_A = 180) = 110$

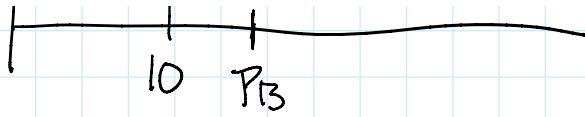
$$\pi_B = (210 - P)P - 10(210 - P)$$

$$\frac{\partial \pi_B}{\partial P} = 210 - 2P + 10 = 0$$

$$\frac{220}{2} = P^n = 110$$

⑧ $(P_A = 11, P_B = 11)$ es E.N.





$$\pi(12, 12)$$

vs

$$\pi(11, 11)$$

$$\pi = \left(\frac{210-12}{2}\right)(12) - 10\left(\frac{210-12}{2}\right)$$

$$\pi = \left(\frac{210-11}{2}\right)(11) - 10\left(\frac{210-11}{2}\right)$$

$$\pi = \left(\frac{210-12}{2}\right)(2)$$

$$\pi = \left(\frac{210-11}{2}\right)(1)$$

$$= 198$$

>

$$= \frac{199}{2}$$