

# OBEČNÁ EKONOMIE I.

2005-01-10

## VÝROBNÍ FAKTORY:

•  $TP = 10x^2 - x^3$

Těh X - dokonalá konkurence

$P = 10$  ( $P_Q$  - cena produktu)

- Těh Q - dokonalé / nedokonalé konkurenční těh produktů:  
Těh dokonalé konkurenční

- Kalkulační fce poptávky:

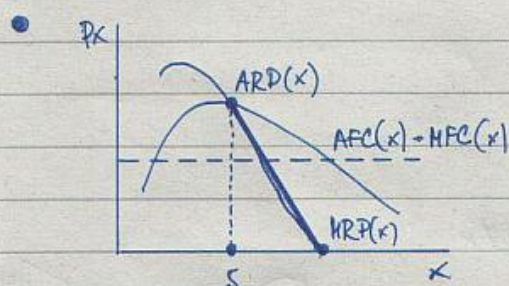
$$MRP_x = MR_Q \cdot MP_x = \frac{\partial TR}{\partial x}$$

$$\frac{\Delta TR}{\Delta x} = \frac{\Delta TR}{\Delta Q} \cdot \frac{\Delta Q}{\Delta x}$$

$$TR(x) = 10(10x^2 - x^3)$$

$$TR(x) = 100x^2 - 10x^3$$

$$MRP_x = 10(20x - 3x^2)$$



$$ARP(x) = 100x - 10x^2$$

$$\frac{TR}{x} = \frac{TR}{Q} \cdot \frac{Q}{x} = AR_Q \cdot AP_x$$

$$\frac{\partial ARP(x)}{\partial x} = 100 - 20x = 0$$

$$x = 5$$

$$MRP(x) = 200x - 30x^2 = 0$$

$$10x(20 - 3x) = 0$$

$$x = \frac{20}{3}$$

$$x \in \left(5; \frac{20}{3}\right)$$

•  $P_x = 120$

$$MRP_x = MCF_x$$

$$120 = 200x - 30x^2$$

$$0 = x^2 - \left(\frac{20}{3}\right)x + 4$$

$$0 = (x-6)\left(x-\frac{2}{3}\right)$$

$$x_1 = \frac{2}{3} \quad x$$

$$x_2 = 6$$

- $Q = ?$   $Q = TP = 10x^2 - x^3$   
 $Q = TP = 10 \cdot 6^2 - 6^3$   
 $Q = TP = 10 \cdot 36 - 216$   
 $Q = TP = 144$

- $FC = 100$   $\pi = P \cdot q + P_x \cdot X - FC +$   
 $\pi = 10 \cdot 144 + 120 \cdot 6 - 100$   
 $\pi = 620$

- $MRP_x = 400x - 20x^2$   
 $MFC_x = 180 + 200x$

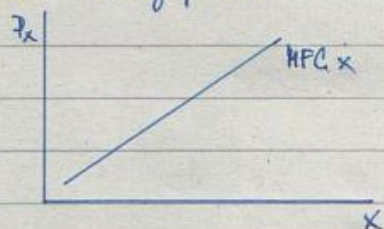
- Fce pozitivky po faktoru:

NE

- Fce nahledky faktoru:

$$VC = 180 + 100x^2$$

$$AFC_x = 180 + 100x$$



- Invozitel a cena:

$$400x - 20x^2 = 180 + 200x$$

$$2x^2 - 20x + 18 = 0$$

$$x^2 - 10x + 9 = 0$$

$$(x-1)(x-9) = 0$$

$$\underline{x = 1} \quad x$$

$$\underline{x = 9}$$

