

Oef. 11. p A.17

$$3p - 27 + q^2 = 0 \Rightarrow p = \frac{27 - q^2}{3} = 9 - \frac{q^2}{3}$$

$$= D^{-1}(q)$$

$$\Rightarrow q = \sqrt{27 - 3p} = D(p)$$

vaste kost = 100 Euro

$$MK(q) = q^2 - 6q + 1$$

$$(a) K(q) = \frac{q^3}{3} - 3q^2 + q + \underbrace{100}_{\text{vaste kost}}$$

$$(b) W(q) = p \cdot q - K(q) = q \cdot D^{-1}(q) - K(q)$$

$$= q \left( 9 - \frac{q^2}{3} \right) - \left( \frac{q^3}{3} - 3q^2 + q + 100 \right)$$

$$= -\frac{2}{3}q^3 + 3q^2 + 8q - 100$$

W max?

$$W'(q) = 0 \Leftrightarrow -2q^2 + 6q + 8 = 0$$

$$\Leftrightarrow q^2 - 3q - 4 = 0$$

$$\Leftrightarrow q_0 = 4 \text{ of } -1$$

$$(W''(q) = -4q + 6 \rightarrow W''(q_0) = -10 < 0)$$

$$p_0 = D^{-1}(q_0) = 9 - \frac{16}{3} = \frac{11}{3}$$

$$(c) \frac{ED}{Ep}(p) = p \cdot \frac{D'(p)}{D(p)} = p \left( \ln D(p) \right)'$$

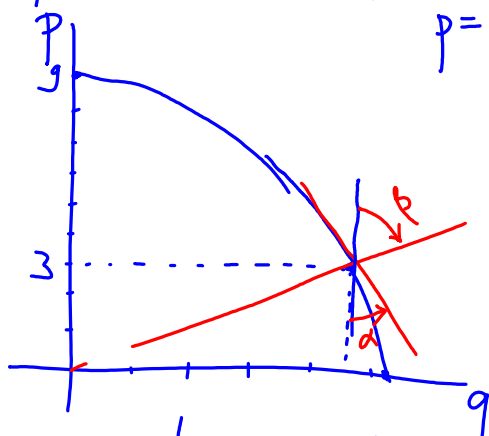
$$= p \left( \frac{1}{2} \ln(27 - 3p) \right)' = p \cdot \frac{-3}{2(27 - 3p)}$$

$$= \frac{-p}{18 - 2p}$$

$$\frac{ED}{Ep} \left( \frac{11}{3} \right) = \frac{-\frac{11}{3}}{18 - \frac{22}{3}} = \frac{-11}{32} \Rightarrow \text{inelast}$$

$$(d) q = D(p) = \sqrt{27 - 3p}$$

$$p = 9 - \frac{q^2}{3}$$



$$\frac{ED}{EP}(p) = \frac{t_{q\alpha}}{t_{q\beta}} = \frac{\text{rico rkl tov p-as}}{\text{rico voorstraal tov p-as}}$$

$\alpha < \beta$  in absol. waarde }  $\Rightarrow$  inela -  
 voorstr is stijler dan rkl