

Oef 15 p A.17

$$T = 1 \text{ jaar} = 360 \text{ dagen}$$

$$D = 1024$$

$$C_1 = 25$$

$$C_2 = 12,50$$

→ discont. model

$$(a) K(q) = \text{bestelkost} + \text{beheerkost}$$

$$= C_1 \cdot \# \text{ bestellingen} + C_2 \cdot \# \text{ gemidd. voorraad}$$

$$= C_1 \cdot \frac{D}{q} + C_2 \cdot \frac{q}{2}$$

$$= 25 \cdot \frac{1024}{q} + 12,50 \cdot \frac{q}{2} = \frac{25600}{q} + 6,25q$$

$$(b) q_0! \quad K \text{ min}$$

$$K'(q) = 0 \Leftrightarrow -\frac{25600}{q^2} + 6,25 = 0$$

$$\Leftrightarrow q^2 = \frac{25600}{6,25} = 4096$$

$$\Leftrightarrow q_0 = 64$$

$$K''(q) = 2 \cdot \frac{25600}{q^3} > 0 \Rightarrow \text{min}$$

$$(c) K_{\min} = \frac{25600}{64} + 6,25 \cdot 64$$

$$= 400 + 400 = 800$$

$$(d) \frac{D}{q_0} = \frac{1024}{64} = 16$$

$$(e) \text{verbr. periode} = \frac{q_0 T}{D} = \frac{64 \cdot 360}{1024}$$

$$= 22,5 \text{ dagen}$$