

Eindexamen wiskunde A vwo 1998 -II

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Snoep

8. Kosten per Zzmak: $\frac{20}{100} \cdot \text{fl } 1,- + \frac{10}{100} \cdot \text{fl } 1,- + \frac{20}{100} \cdot \text{fl } 1,50 + 0,75 = \text{fl } 1,35$

Winst: $60\,000 \cdot (\text{fl } 1,50 - \text{fl } 1,35) = \text{fl } 9000,-$

9. $W = (1,5 - (\frac{1,5 \cdot x}{100} + \frac{y}{100} + \frac{50 - x - y}{100} + 0,75)) \cdot (20\,000 + 4000x - 2000y) =$

$$= (300 - (3x + 2y + 100 - 2x - 2y + 150)) \cdot (100 + 20x - 10y) =$$

$$= (50 - x) \cdot (100 + 20x - 10y)$$

10. Voorwaarden: $x \geq 14$ $x + y \geq 50 - 13$
 $y \geq 5$ $x + y \leq 50$

11. $y = 37 - x \rightarrow$

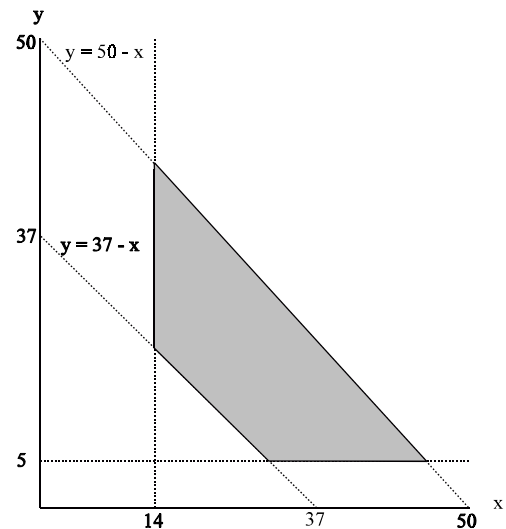
$$W = (100 + 20x - 10(37 - x)) \cdot (50 - x) =$$

$$= (30x - 270) \cdot (50 - x)$$

$$W' = 30 \cdot (50 - x) - (30x - 270) = 1770 - 60x$$

$$W' = 0 \rightarrow x = \frac{1770}{60} = 29,5$$

Tekenschema W' : $\begin{array}{c} + \qquad \qquad - \\ \hline 29,5 \end{array}$



De winst is maximaal als $x = 29,5$ en bedraagt dan $W(29,5) = \text{fl } 12\,607,50$