

1541

$$\alpha) \pi = 2x + 2y$$

$$\left. \begin{array}{l} 4 \leq x \leq 7 \xrightarrow{\cdot 2} 8 \leq 2x \leq 14 \\ 2 \leq y \leq 3 \xrightarrow{\cdot 2} 4 \leq 2y \leq 6 \end{array} \right\} \xrightarrow{+} 12 \leq 2x + 2y \leq 20 \Leftrightarrow$$

$$\Leftrightarrow 12 \leq \pi \leq 20$$

$$\beta) \left. \begin{array}{l} 4 \leq x \leq 7 \xrightarrow{-1} 3 \leq x-1 \leq 6 \xrightarrow{\cdot 2} 6 \leq 2(x-1) \leq 12 \\ 2 \leq y \leq 3 \xrightarrow{\cdot 3} 6 \leq 3y \leq 9 \xrightarrow{\cdot 2} 12 \leq 6y \leq 18 \end{array} \right\} \xrightarrow{+}$$

$$\Rightarrow 18 \leq 2 \cdot (x-1) + 6y \leq 30 \Leftrightarrow 18 \leq \pi' \leq 30$$

αφού  $x-1$  είναι η μία αλυσίδα και  $3y$  η άλλη,  
οπότε  $\pi' = 2 \cdot (x-1) + 2 \cdot 3y = 2(x-1) + 6y$