# 1 Calcolo dei piani

$$B = \begin{pmatrix} 1 \\ 2 \\ 5 \end{pmatrix} \qquad N = \begin{pmatrix} 3 \\ 4 \end{pmatrix}$$

$$A = \begin{pmatrix} 4 & 3 & 1 & 0 & 0 \\ 1 & -1 & 0 & 1 & 0 \\ -3000 & -1000 & 0 & 0 & 1 \end{pmatrix} \qquad A_B = \begin{pmatrix} 4 & 3 & 0 \\ 1 & -1 & 0 \\ -3000 & -1000 & 1 \end{pmatrix} \qquad A_N = \begin{pmatrix} 1 & 0 \\ 0 & 1 \\ 0 & 0 \end{pmatrix}$$

$$A_B^{-1} = \begin{pmatrix} \frac{1}{7} & \frac{3}{7} & 0 \\ \frac{1}{7} & -\frac{4}{7} & 0 \\ \frac{4000}{7} & \frac{5000}{7} & 1 \end{pmatrix} \qquad \tilde{A} = \begin{pmatrix} \frac{1}{7} & \frac{3}{7} \\ \frac{1}{7} & -\frac{4}{7} \\ \frac{4000}{7} & \frac{5000}{7} \end{pmatrix} \qquad \tilde{b} = \begin{pmatrix} \frac{12}{7} \\ \frac{12}{7} \\ \frac{27000}{7} \end{pmatrix}$$

# 2 Piani di taglio

$r = 1 \quad + \frac{1}{7}x_3 + \frac{3}{7}x_4 \geq \frac{5}{7}$
$r = 2 \quad + \frac{1}{7}x_3 + \frac{3}{7}x_4 \geq \frac{5}{7}$
$r = 5 \quad + \frac{3}{7}x_3 + \frac{2}{7}x_4 \geq \frac{1}{7}$

# 3 Valutazioni

$$x_i = \begin{pmatrix} 1 \\ 1 \end{pmatrix} \quad x_s = \begin{pmatrix} \frac{12}{7} \\ \frac{12}{7} \end{pmatrix} \qquad 500 \leq v \leq 857$$

# 4 Riprove

$$\text{Soluzione intlinprog: } x_{int} = \begin{pmatrix} 0 \\ 4 \end{pmatrix} \qquad v_{int} = 800$$