

Correction d'examen du p.l (Info) 1,
2020/2021

Ex 11

$$z = 6u_1 + 4u_2 \rightarrow \max$$

$$\begin{cases} 4u_1 + 5u_2 \leq 11 \\ \frac{1}{2}u_1 + u_2 \geq 1 \\ 4u_1 + u_2 \leq 12 \\ 2u_1 + u_2 \geq 2 \\ u_1 \geq 0, u_2 \geq 0 \end{cases}$$

① La forme canonique

$$z' = 6u_1 + 4u_2 \rightarrow \max$$

$$\begin{cases} 4u_1 + 5u_2 \leq 11 \\ -\frac{1}{2}u_1 - u_2 \leq -1 \\ 4u_1 + u_2 \leq 12 \\ -2u_1 - u_2 \leq 2 \\ u_1 \geq 0, u_2 \geq 0 \end{cases}$$

(1,1)

② La forme standard

$$\begin{cases} w = 6u_1 + 4u_2 \rightarrow \max \\ 4u_1 + 5u_2 + (u_3) = 11 \\ -\frac{1}{2}u_1 - u_2 + (u_4) = -1 \\ 4u_1 + u_2 + (u_5) = 12 \\ -2u_1 - u_2 + (u_6) = 2 \\ u_i \geq 0, i=1,2,3,4,5,6 \end{cases}$$

(1,1)