



$$\{x \in \mathbb{R} \mid x \leq 3\}$$



$$x_2 = \frac{1}{3} - \frac{1}{6}x_1$$

$$x_2 \leq \frac{1}{3} - \frac{1}{6}x_1$$

$$x = (x_1, x_2)$$

$$\begin{aligned} x_1 &\geq 0 \\ x_2 &\geq 0 \\ x_1 &\leq \frac{1}{2} \\ x_2 &\leq \frac{1}{3} \\ x_1 + 6x_2 &\leq 2 \end{aligned}$$

$$P = \{x \in \mathbb{R}^n \mid Ax \leq b\}$$

$$\begin{aligned} -x_1 &\leq 0 \\ -x_2 &\leq 0 \\ 2x_1 &\leq 1 \\ 3x_2 &\leq 1 \\ x_1 + 6x_2 &\leq 2 \end{aligned}$$

$$A = \begin{pmatrix} -1 & 0 \\ 0 & -1 \\ 2 & 0 \\ 0 & 3 \\ 1 & 6 \end{pmatrix}$$