

Chap7 Homework

1

求下面多项式的最小值

$$f(x) = 3x_1^2 + 5x_2^2 - 4x_1$$

2

求解下列线性规划问题

$$\begin{aligned} \max z &= 2x_1 + 3x_2 - 5x_3 \\ \text{s.t. } x_1 + x_2 + x_3 &= 7 \\ 2x_1 - 5x_2 + x_3 &\geq 10 \\ x_1 + 3x_2 + x_3 &\leq 12 \\ x_1, x_2, x_3 &\geq 0 \end{aligned}$$

3

求解二次规划

$$\left\{ \begin{array}{l} \min f(x) = 2x_1^2 - 4x_1x_2 + 4x_2^2 - 6x_1 - 3x_2 \\ x_1 + x_2 \leq 3 \\ 4x_1 + x_2 \leq 9 \\ x_1, x_2 \geq 0 \end{array} \right.$$