

$$\min -10x_1 - x_2$$

$$\text{s.t.}$$

$$x_1 + x_2 + x_3 = 10$$

$$x_1 + x_4 = 6$$

$$\frac{1}{2}x_1 + x_2 + x_5 = 8$$

$$x_i \geq 0 \quad \forall i = 1, \dots, 5$$

$$X^* = [6 \ 4 \ 0 \ 0 \ 1]$$