

$$\min \sum_{i=1}^n c_i |x_i| \quad \min \sum_{i=1}^n c_i z_i$$

$$Ax \geq b$$

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$$z_i \geq x_1$$

$$z_i \geq -x_1$$

$$\min 2x_1 + 3|x_2 - 10|$$

$$|x_1 + 2| + |x_2| \leq 5$$

$$\min 2x_1 + 3z_1$$

$$\left\{ \begin{array}{l} z_2 + z_3 \leq 5 \\ z_1 \geq x_2 - 10 \\ z_1 \geq -x_2 + 10 \\ z_2 \geq x_1 + 2 \\ z_2 \geq -x_1 - 2 \\ z_3 \geq x_2 \\ z_3 \geq -x_2 \end{array} \right. ;$$

$$\min c^T x + f(d^T x)$$

$$Ax \geq b$$

$$f(x) = \max\{1 - x, 0, 2x - 4\}$$

$$\min c^T x + z$$

$$z \geq -d^T x + 1$$

$$z \geq 0$$

$$z \geq 2d^T x - 4$$

$$Ax \geq b$$