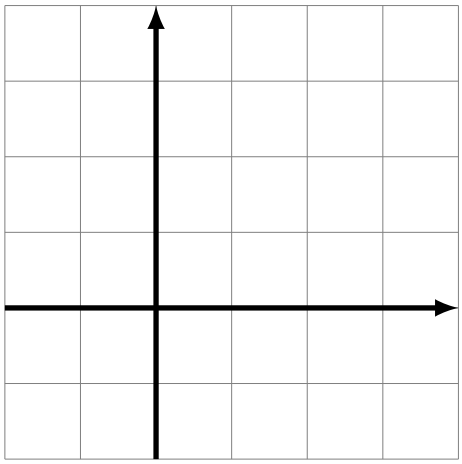
Exception handling: unboundedness

Example. Maximize

$$z = x_1$$

subject to:

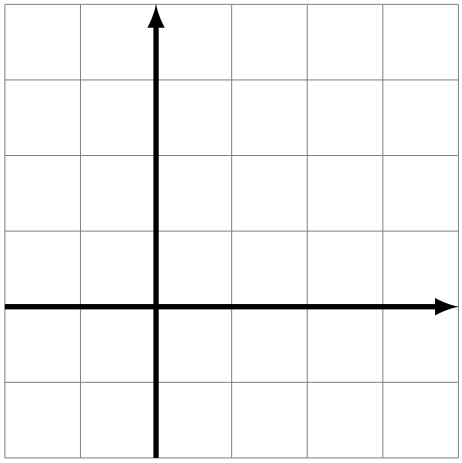
$$\begin{aligned} x_1 - x_2 &\leq 1 \\ -x_1 + x_2 &\leq 2 \\ x_1,\ x_2 &\geq 0 \end{aligned}$$



Exception handling: degeneracy

Example. Maximize

$$z = x_2$$

subject to:

$$\begin{aligned} -x_1 + x_2 &\leq 0 \\ x_1 &\leq 2 \\ x_1,\ x_2 &\geq 0 \end{aligned}$$