Maximizar o Minimizar la función $Z = C_1 \cdot X_1$

S.a.

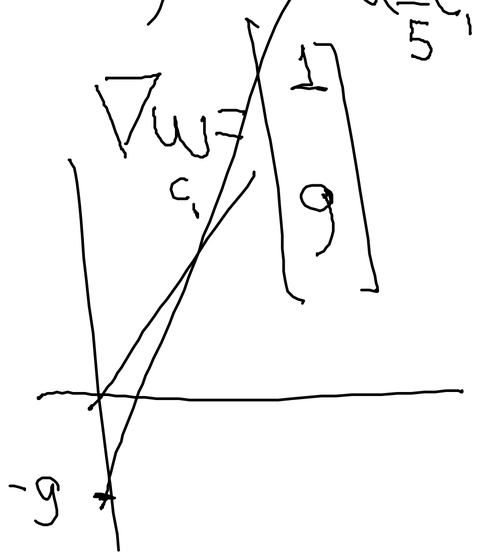
$X_1 \geq 1$

$X_1 \leq 9$

$X_1 \geq 0$

$[1, 9]$

$(C_1 > 0)$



$Z(X_1)$

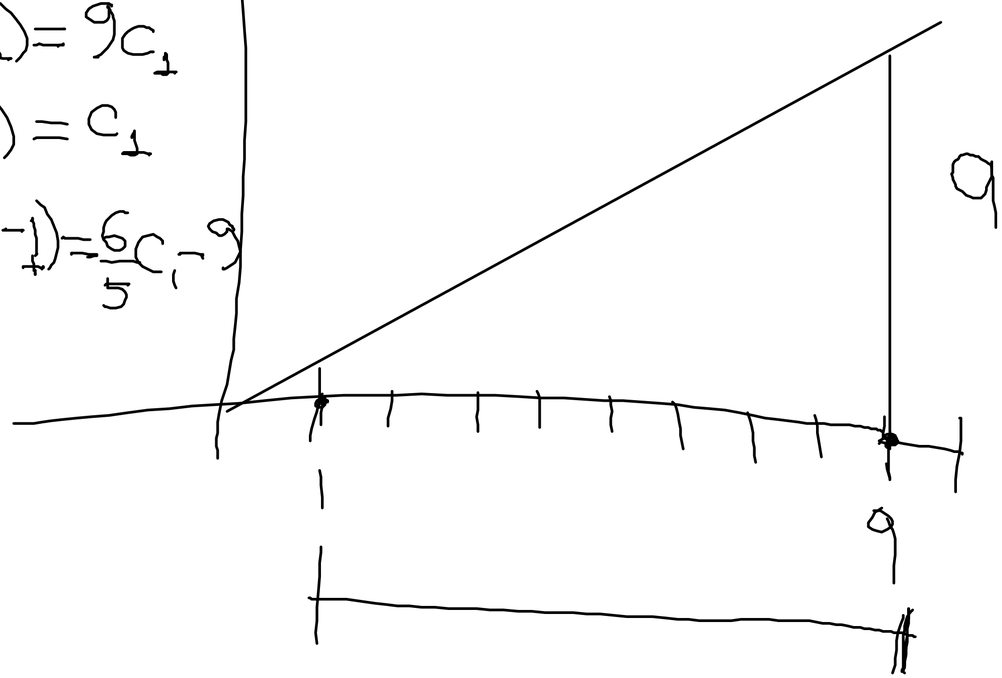
$y_1 + y_2 \geq C_1$

$(y_2 = -y_1 + C_1)$

$w(0, C_1) = 9C_1$

$w(C_1, 0) = C_1$

$w\left(\frac{6}{5}C_1, -1\right) = \frac{6}{5}C_1 - 9$

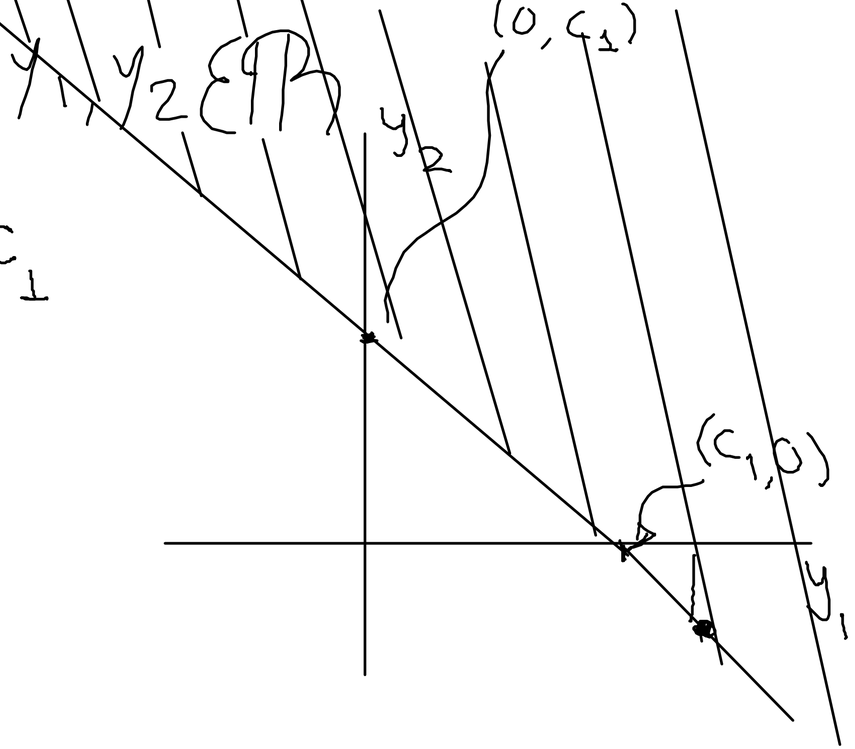


Función objetivo
Problema dual

$Min: w = (1)(y_1) + (9)(y_2) = y_1 + 9y_2$

$S.a. \begin{bmatrix} 1 & 1 \end{bmatrix} \begin{bmatrix} y_1 \\ y_2 \end{bmatrix} \geq C_1$

$y_1, y_2 \in \mathbb{R}$



$(y_2 = -y_1 + c_1)$

$$\min w = y_1 + 9y_2$$

$$= y_1 + 9(-y_1 + c_1) = -8y_1 + 9c_1$$

w | $y_2 = -y_1 + c_1$