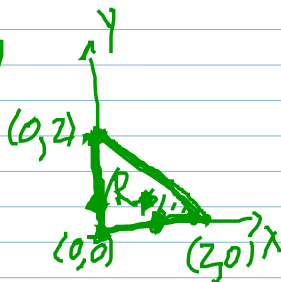


Optimierung

$$f(x,y) = \frac{1}{2}x^2 + y^2 - x - y$$



$$\begin{cases} f_x = x-1=0 \\ f_y = 2y-1=0 \end{cases} \Rightarrow \begin{cases} x=1 \\ y=\frac{1}{2} \end{cases}$$

$$\left(1, \frac{1}{2}\right)$$

$$x=0 \quad \gamma(y) = f(0,y) = y^2 - y.$$

$$0 \leq y \leq 2$$

$$\gamma'(y) = 2y - 1 \quad \gamma'(y) = 0 \Leftrightarrow y = \frac{1}{2}$$

$$(0,0), (0,2), \left(0, \frac{1}{2}\right)$$

$$y=0 \quad 0 \leq x \leq 2$$

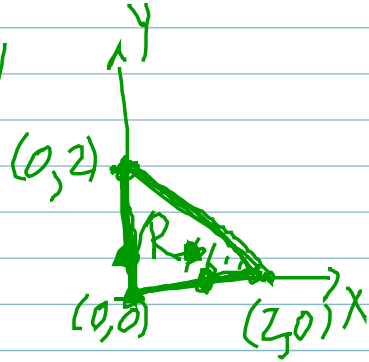
$$\gamma(x) = f(x,0) = \frac{1}{2}x^2 - x$$

$$\gamma'(x) = x - 1 \quad \gamma'(x) = 0 \Leftrightarrow x = 1$$

$$(2,0), (1,0)$$

Optimierung

$$f(x,y) = \frac{1}{2}x^2 + y^2 - x - y$$



$$\left. \begin{array}{l} f_x = x - 1 = 0 \\ f_y = 2y - 1 = 0 \end{array} \right\} \begin{array}{l} x = 1 \\ y = \frac{1}{2} \end{array}$$

$\left(1, \frac{1}{2}\right)$

$$x=0 \quad \gamma(y) = f(0,y) = y^2 - y.$$

$$0 \leq y \leq 2$$

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$$(0,0), (0,2), \left(0, \frac{1}{2}\right)$$

$$y=0 \quad 0 \leq x \leq 2$$

$$\gamma(x) = f(x,0) = \frac{1}{2}x^2 - x$$

$$\gamma'(x) = x - 1 \quad \gamma'(x) = 0 \Leftrightarrow x = 1$$

$$(2,0), (1,0)$$

$$y = 2 - x$$

$$\begin{aligned}\gamma(x) &= f(x, 2-x) = \frac{1}{2}x^2 + (2-x)^2 - x - (2-x) \\ &= \frac{3}{2}x^2 - 4x + 2\end{aligned}$$

$$\gamma'(x) = 3x - 4 \quad \gamma'(x) = 0 \Leftrightarrow x = \frac{4}{3}$$

$$y = 2 - \frac{4}{3} = \frac{2}{3}$$

$$\left(\frac{4}{3}, \frac{2}{3}\right)$$

$$\begin{cases} f(0,0) = 0 \end{cases}$$

$$\begin{cases} f(2,0) = 0 \end{cases}$$

$$\begin{cases} f(0,2) = 2 \end{cases}$$

$$\begin{cases} f(1, \frac{1}{2}) = -\frac{3}{4} \end{cases}$$

$$\begin{cases} f(0, \frac{1}{2}) = -\frac{1}{4} \end{cases}$$

$$\begin{cases} f(\frac{4}{3}, \frac{2}{3}) = -\frac{2}{3} \end{cases}$$

$$\begin{cases} f(1,0) = -\frac{1}{2} \end{cases}$$