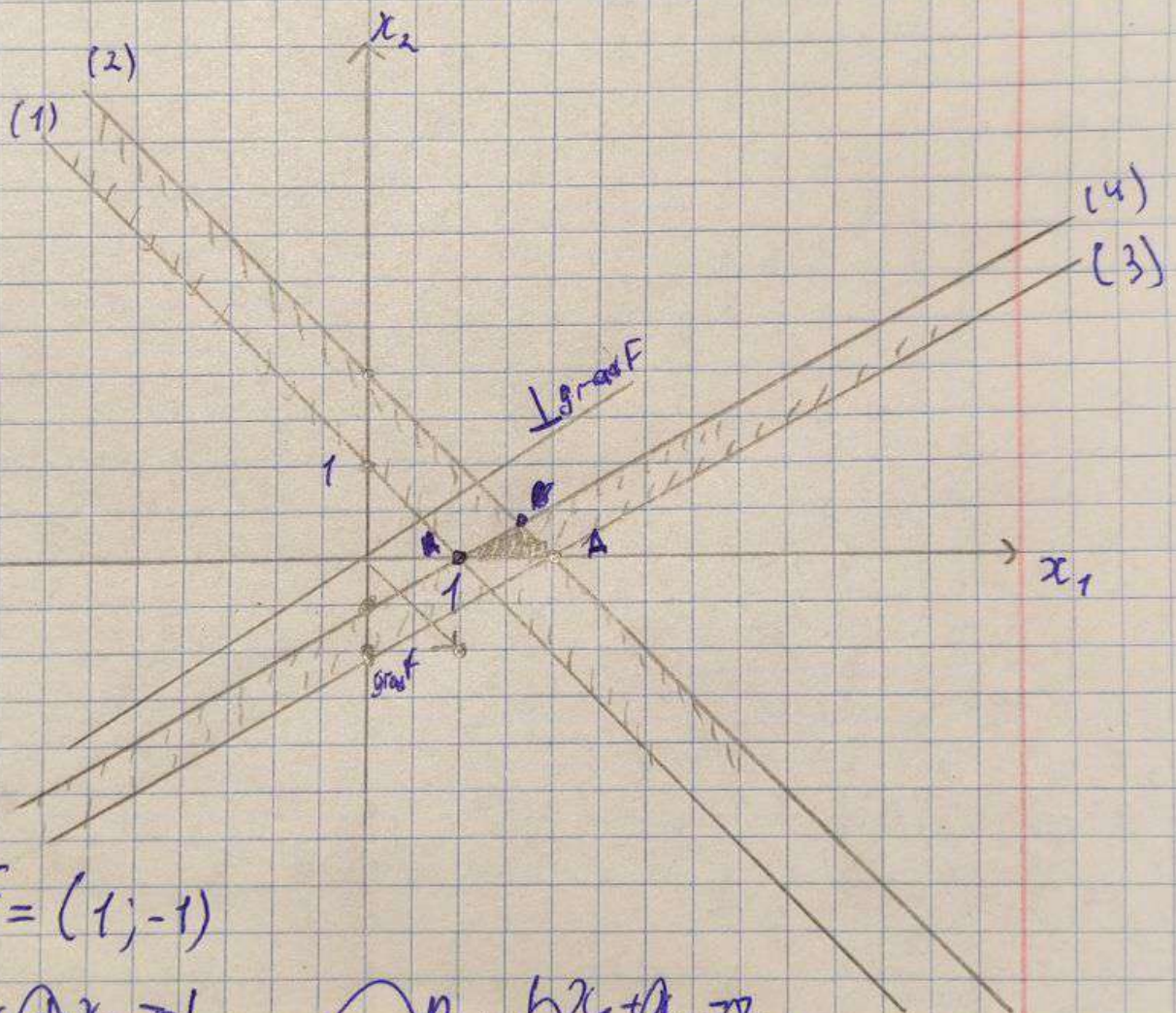


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Лад 5 Вар 7

$$F = x_1 - x_2$$

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

$$\begin{cases} x_1 + x_2 \geq 1 \\ x_1 + x_2 \leq 2 \\ x_1 - 2x_2 \leq 2 \\ x_1 - 2x_2 \geq 1 \\ x_1 \geq 0 \\ x_2 \geq 0 \end{cases}$$



$$\text{grad } F = (1; -1)$$

A:  $\begin{cases} x_1 + x_2 \geq 1 \\ x_1 - 2x_2 = 2 \end{cases}$  B:  $\begin{cases} x_1 + x_2 = 2 \\ x_1 - 2x_2 \geq 1 \end{cases}$



$$A: (x_1, x_2) = \left(\frac{4}{3}, \frac{1}{3}\right)$$

$$F = \frac{4}{3} - \left(-\frac{1}{3}\right) = \frac{5}{3}$$

$$B: (x_1, x_2) = \left(\frac{5}{3}, \frac{1}{3}\right)$$

$$F = \frac{5}{3} - \frac{1}{3} = \frac{4}{3}$$

B

$$A: \begin{cases} x_1 + x_2 = 2 \\ x_1 - 2x_2 = 2 \end{cases}$$

$$\Rightarrow (x_1, x_2) = (2, 0)$$

$$F_{\max} = 2 - 0 = 2$$