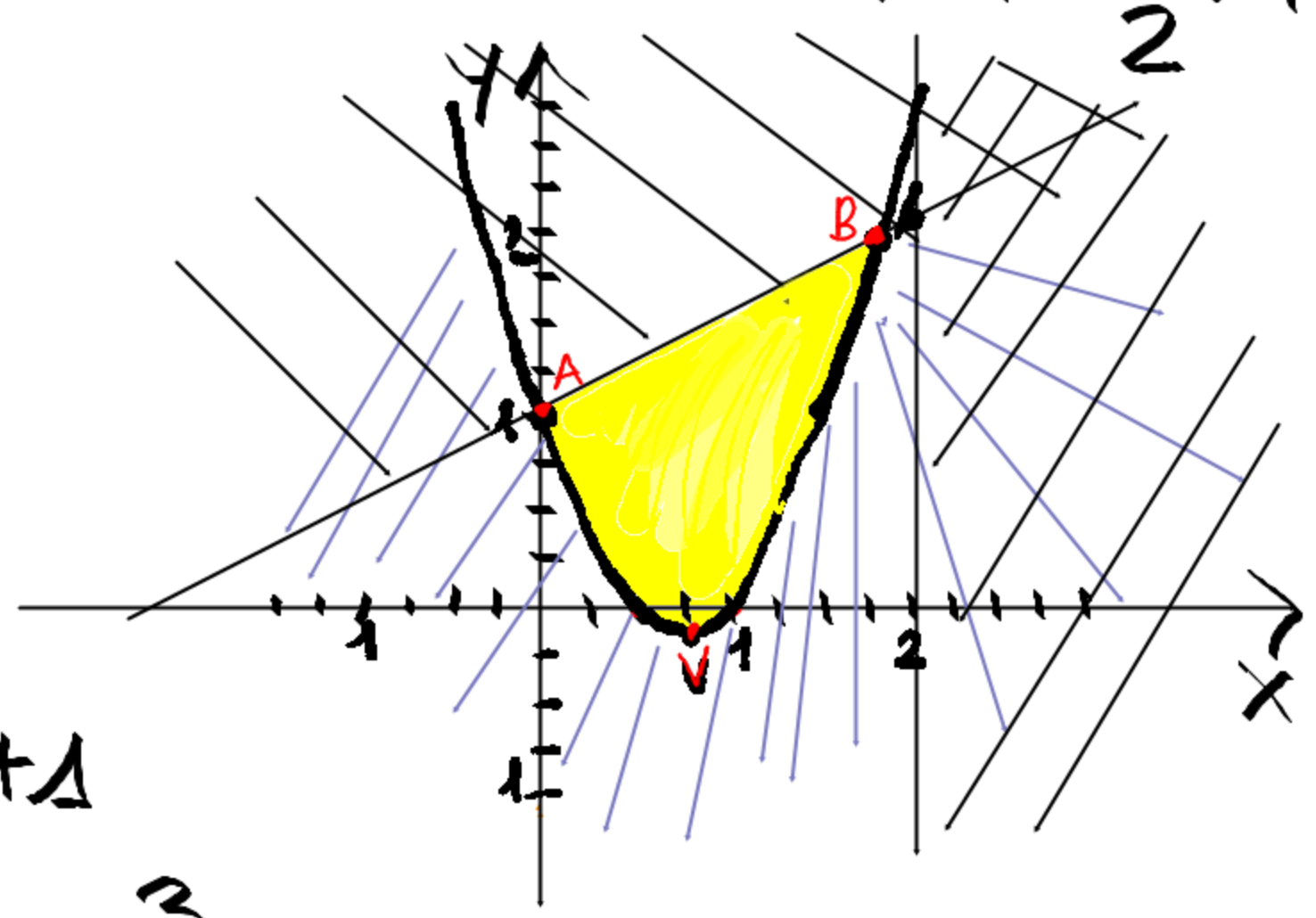


$$\begin{cases} y-1 \geq 2x^2-3x \\ 2-x \geq 0 \\ 2y-2 \leq x \end{cases}$$

$$\begin{cases} y \geq 2x^2-3x+1 \\ x \leq 2 \\ 2y \leq x+2 \Rightarrow y \leq \frac{1}{2}x+1 \end{cases}$$



X	Y
2	2
0	1

$$y = 2x^2 - 3x + 1$$

$$\frac{-b}{2a} = \frac{3}{4}$$

Asse di simmetria: $x = \frac{3}{4}$

$$\begin{cases} y = 2x^2 - 3x + 1 \\ x = \frac{3}{4} \end{cases} \Rightarrow \begin{cases} y = 2\left(\frac{3}{4}\right)^2 - 3\left(\frac{3}{4}\right) + 1 \\ x = \frac{3}{4} \end{cases} \Rightarrow \begin{cases} y = \frac{18}{8} - \frac{9}{4} + 1 \\ x = \frac{3}{4} \end{cases}$$

$$\begin{cases} y = \frac{9-18+8}{8} \\ x = \frac{3}{4} \end{cases} \Rightarrow \begin{cases} y = -\frac{1}{8} \\ x = \frac{3}{4} \end{cases} \quad V\left(\frac{3}{4}, -\frac{1}{8}\right)$$

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

$$\begin{aligned} 0 &= 2x^2 - 3x + 1 \\ 0 &= 2x^2 - 2x - x + 1 \\ 0 &= 2x(x-1) - 1(x-1) \\ 0 &= (2x-1)(x-1) \\ \frac{2x-1}{2} &= \frac{1}{2} \quad x=1 \end{aligned}$$

Intersezione asse y $(0, 1)$

$$y = 1$$

A(0, 1) B

$$\begin{cases} y = 2x^2 - 3x + 1 \\ y = \frac{1}{2}x + 1 \end{cases} \Rightarrow \begin{cases} \frac{1}{2}x + 1 = 2x^2 - 3x + 1 \\ \text{idem} \end{cases} \Rightarrow \begin{cases} -2x^2 + \frac{1}{2}x + 3x = 0 \\ \text{idem} \end{cases}$$

$$\begin{cases} 2x^2 + \frac{7}{2}x = 0 \\ \text{idem} \end{cases} \Rightarrow \begin{cases} x(2x + \frac{7}{2}) = 0 \\ \text{idem} \end{cases} \Rightarrow \begin{cases} x=0 \\ \frac{2x}{2} = -\frac{7}{2} \end{cases} \Rightarrow \begin{cases} x=0 \\ y=1 \end{cases} \Rightarrow \begin{cases} x = -\frac{7}{4} \\ y = -\frac{7}{4} + 1 = -\frac{3}{4} \end{cases}$$

$$B\left(\frac{7}{4}; \frac{15}{8}\right)$$

la soluzione del sistema è data dalla regione evidenziata in giallo con i vertici

$$A(0; 1)$$

$$B\left(\frac{7}{4}; \frac{15}{8}\right)$$

$$V\left(\frac{3}{4}; -\frac{1}{8}\right)$$