

Ex 2

C . B
A .

+

$$A = \begin{pmatrix} 3 \\ 2 \end{pmatrix}$$

$$B = \begin{pmatrix} 3 \\ 5 \end{pmatrix}$$

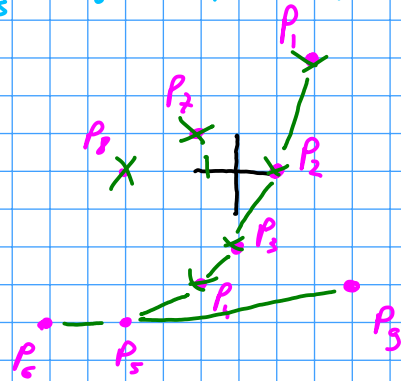
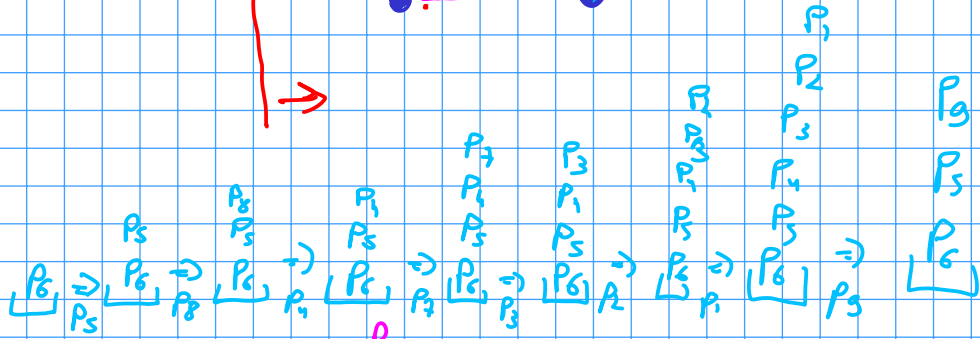
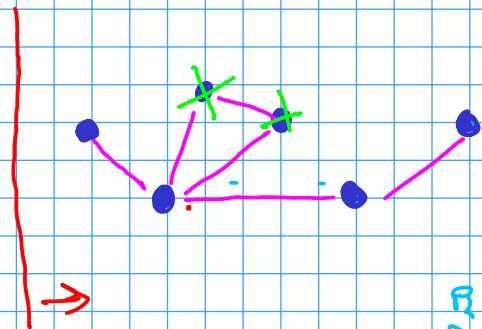
$$C = \begin{pmatrix} 1 \\ 5 \end{pmatrix}$$

$$\Delta = \begin{vmatrix} 1 & 1 & 1 \\ A_x & B_x & C_x \\ A_y & B_y & C_y \end{vmatrix}$$

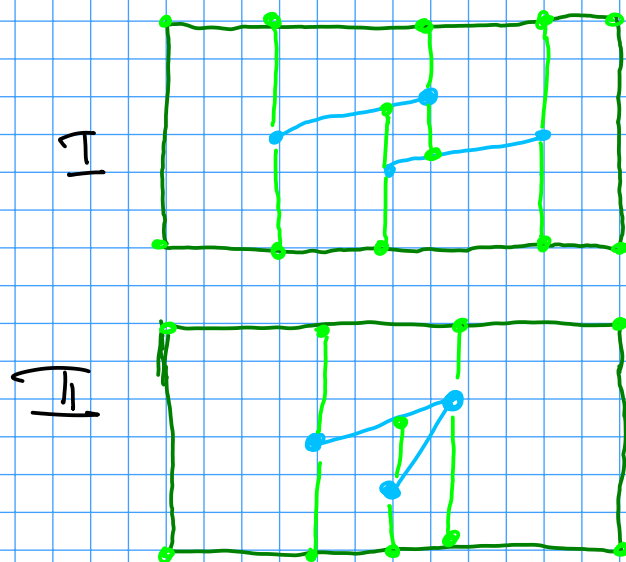
$$= \begin{vmatrix} 1 & 1 & 1 \\ 3 & 3 & 1 \\ 2 & 5 & 5 \end{vmatrix} = \begin{vmatrix} 1 & 0 & 1 \\ 3 & 0 & 1 \\ 2 & 3 & 5 \end{vmatrix}$$

$$-3(1-3) = 9$$

Ex 3



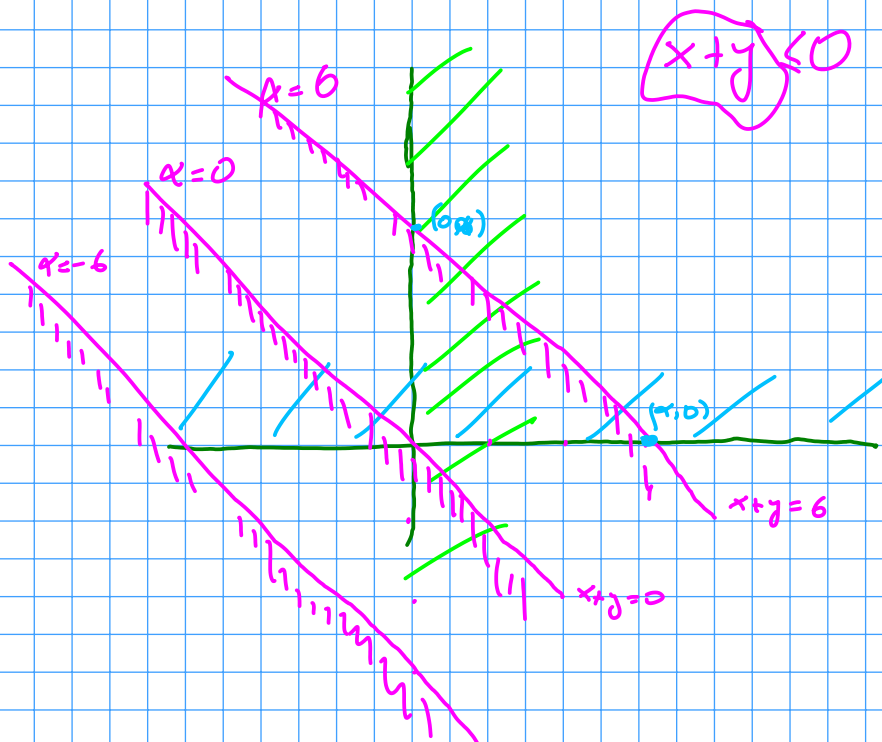
4



5

$$H_1 : -y \leq 0$$

$$H_2 : -x \leq 0$$

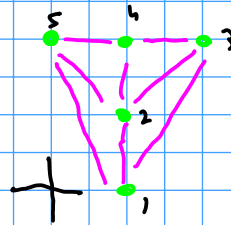
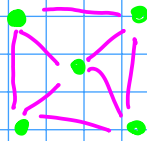


- I $\alpha < 0 \Rightarrow H_1 \cap H_2 \cap H_3 = \emptyset \rightarrow \text{void}$
- II $\alpha = 0 \Rightarrow H_1 \cap H_2 \cap H_3 = \{(0,0)\} \rightarrow \text{finite}$
- III $\alpha > 0 \Rightarrow H_1 \cap H_2 \cap H_3 = \Delta((0,0), (6,0), (0,6)) \rightarrow \text{finite}$

6 a.

N puncte
 K sunt pe margine
 $\left\{ \Rightarrow \begin{array}{l} 3N - K - 3 \text{ muchii} \\ 2N - K - 2 \text{ triunghiuri} \end{array} \right.$

$$\begin{cases} 2N - K - 2 = 4 \\ 3N - K - 3 = 8 \end{cases} \Rightarrow \begin{cases} N = 5 \\ K = 4 \end{cases}$$



$$P_1 = \begin{pmatrix} 2 \\ 0 \end{pmatrix}$$

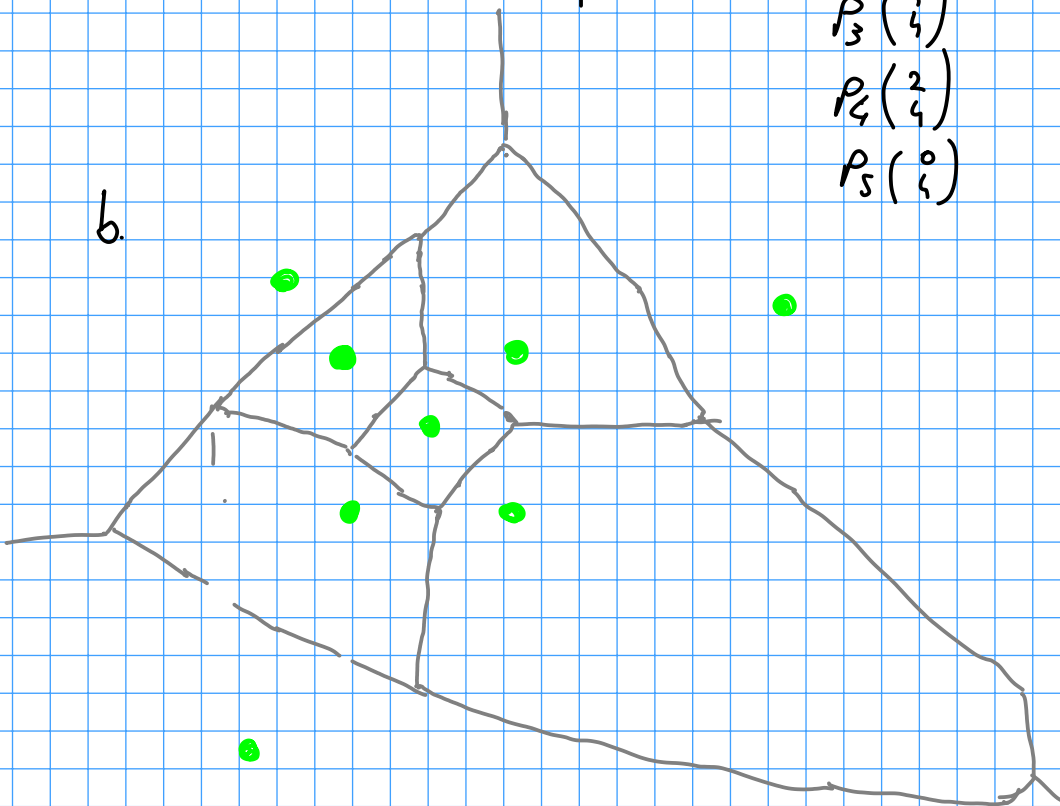
$$P_2 = \begin{pmatrix} 2 \\ 2 \end{pmatrix}$$

$$P_3 = \begin{pmatrix} 4 \\ 4 \end{pmatrix}$$

$$P_4 = \begin{pmatrix} 2 \\ 4 \end{pmatrix}$$

$$P_5 = \begin{pmatrix} 0 \\ 4 \end{pmatrix}$$

b.



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