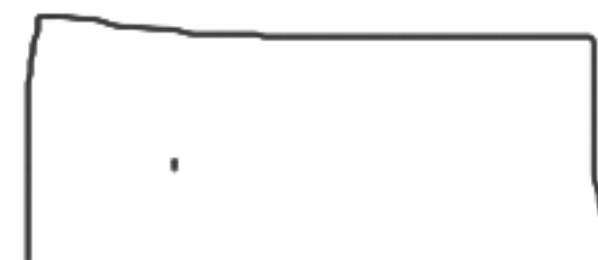
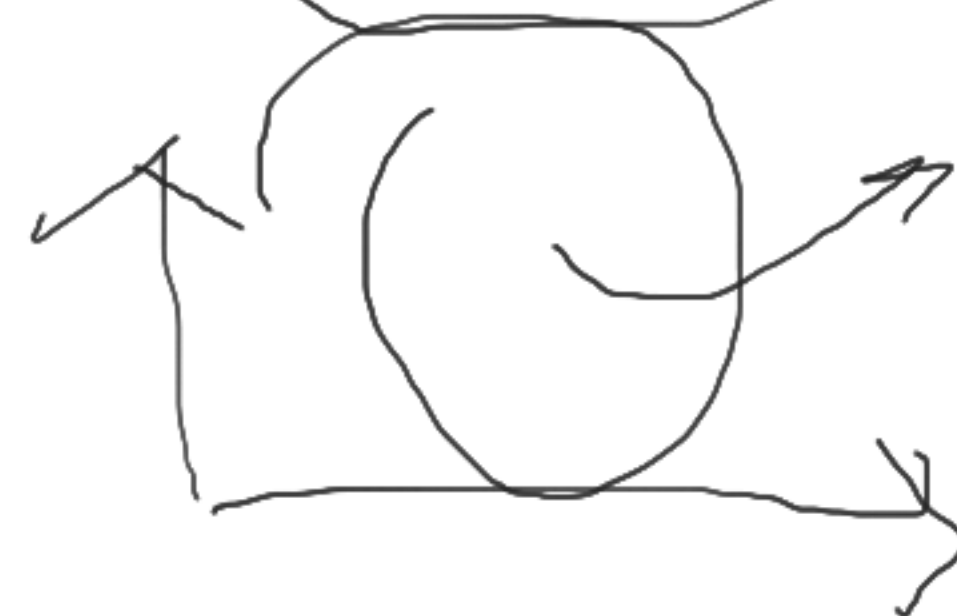
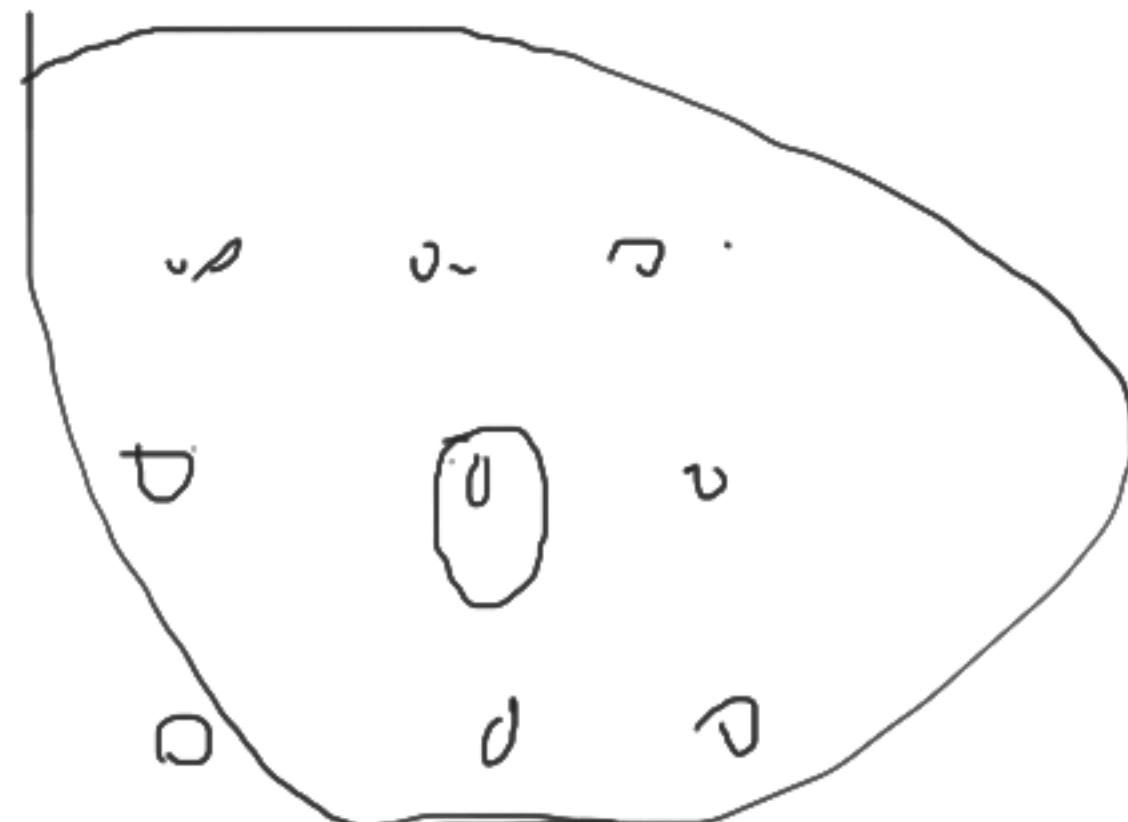




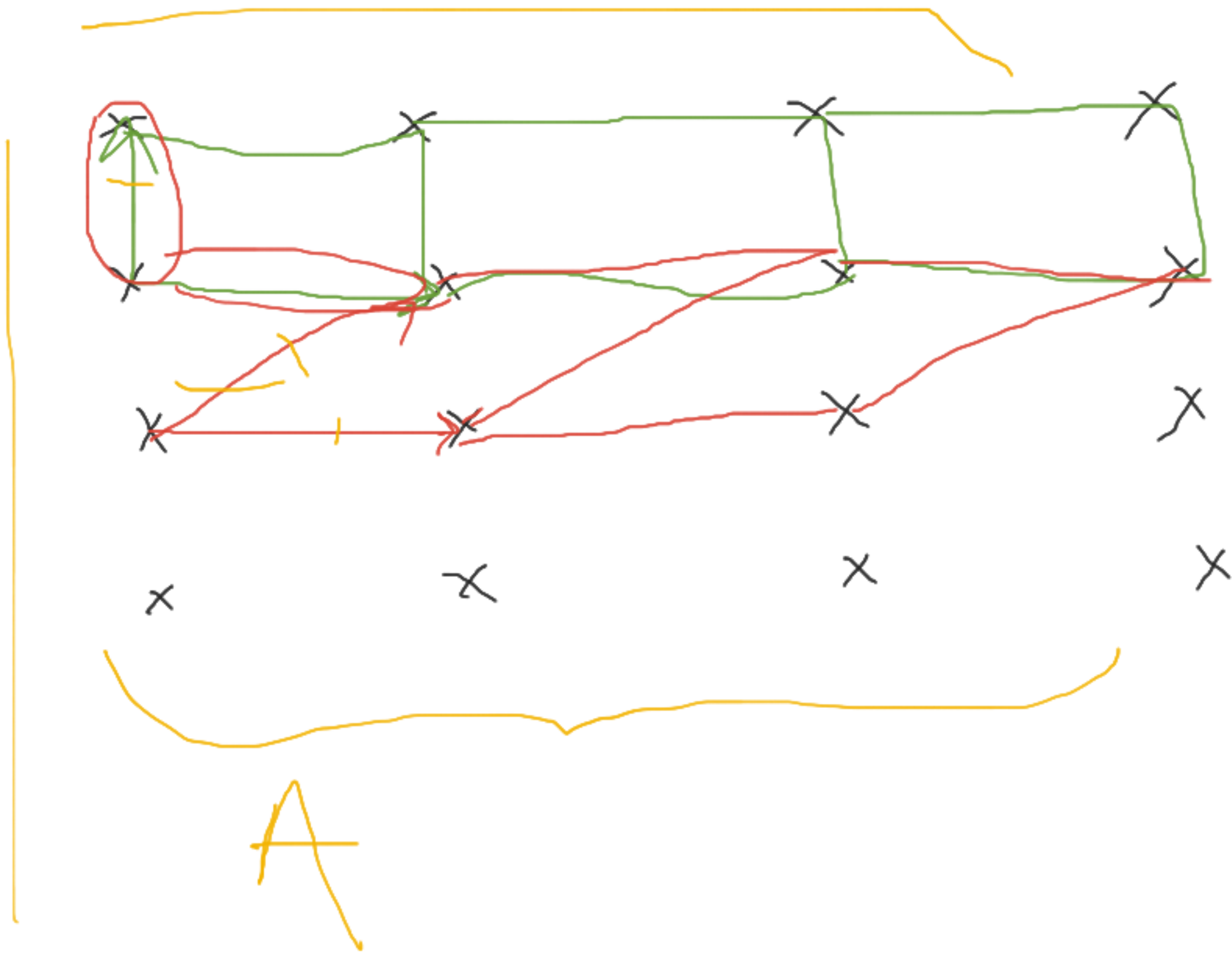
n



x



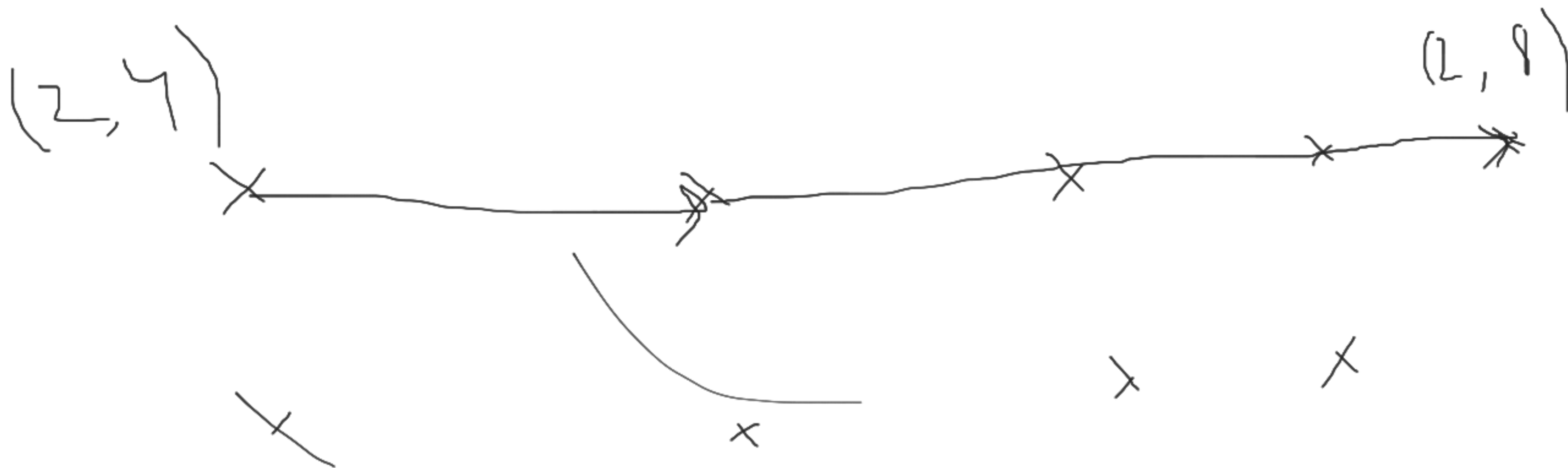
$(0, 1)$



A

2





bad

Span

A

$S \rightarrow \begin{bmatrix} u \\ h \end{bmatrix}_{p \times 1}$ RSA

inner

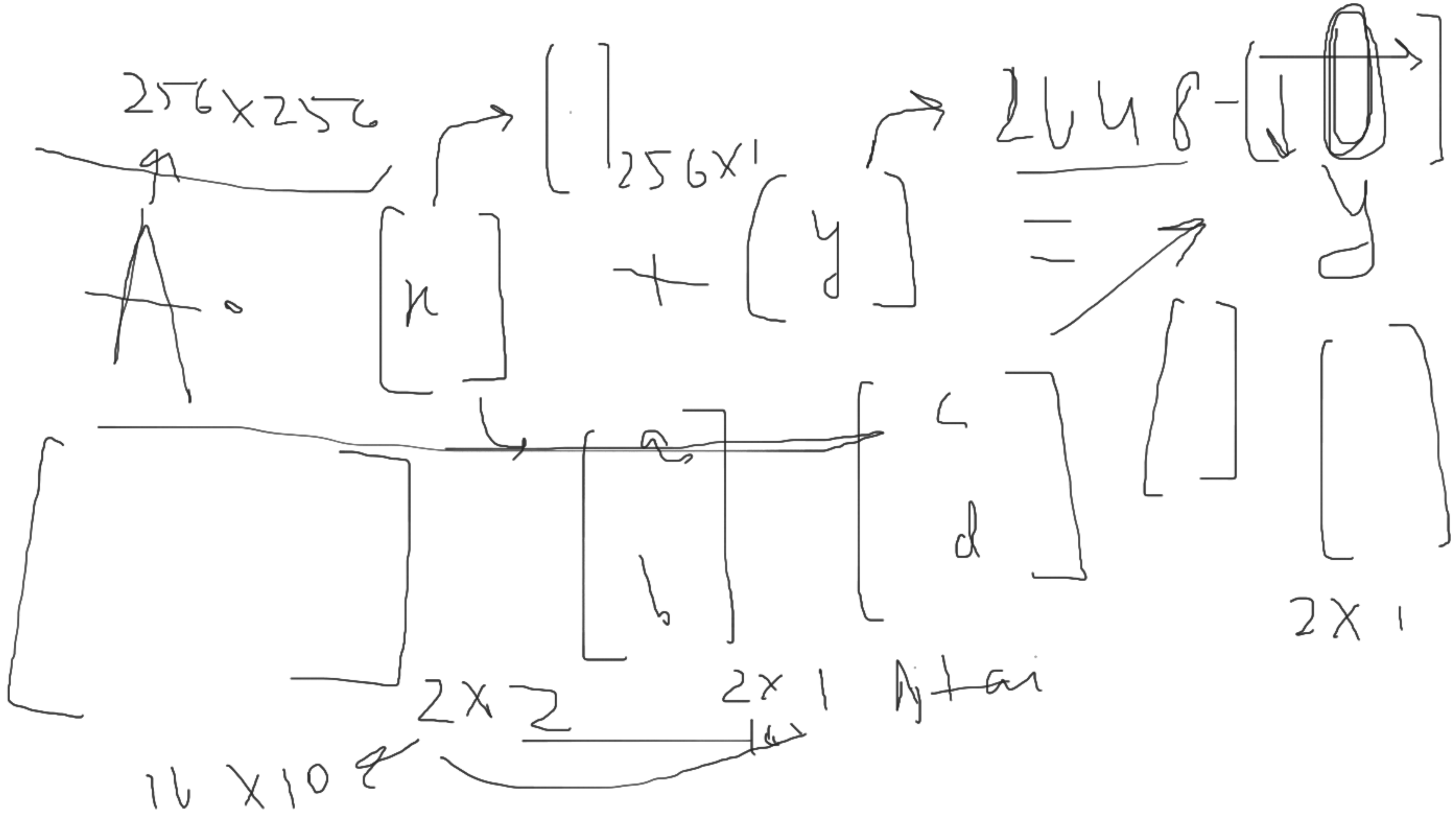
$\begin{matrix} x & x & x \\ x & x & x \\ x & x & x \end{matrix}$

$$\begin{matrix} \uparrow \\ A \end{matrix} x + b = y$$

\downarrow

$$\begin{bmatrix} \end{bmatrix}_{n \times n} \quad \begin{bmatrix} 1 \\ d \end{bmatrix}$$

x



SVP

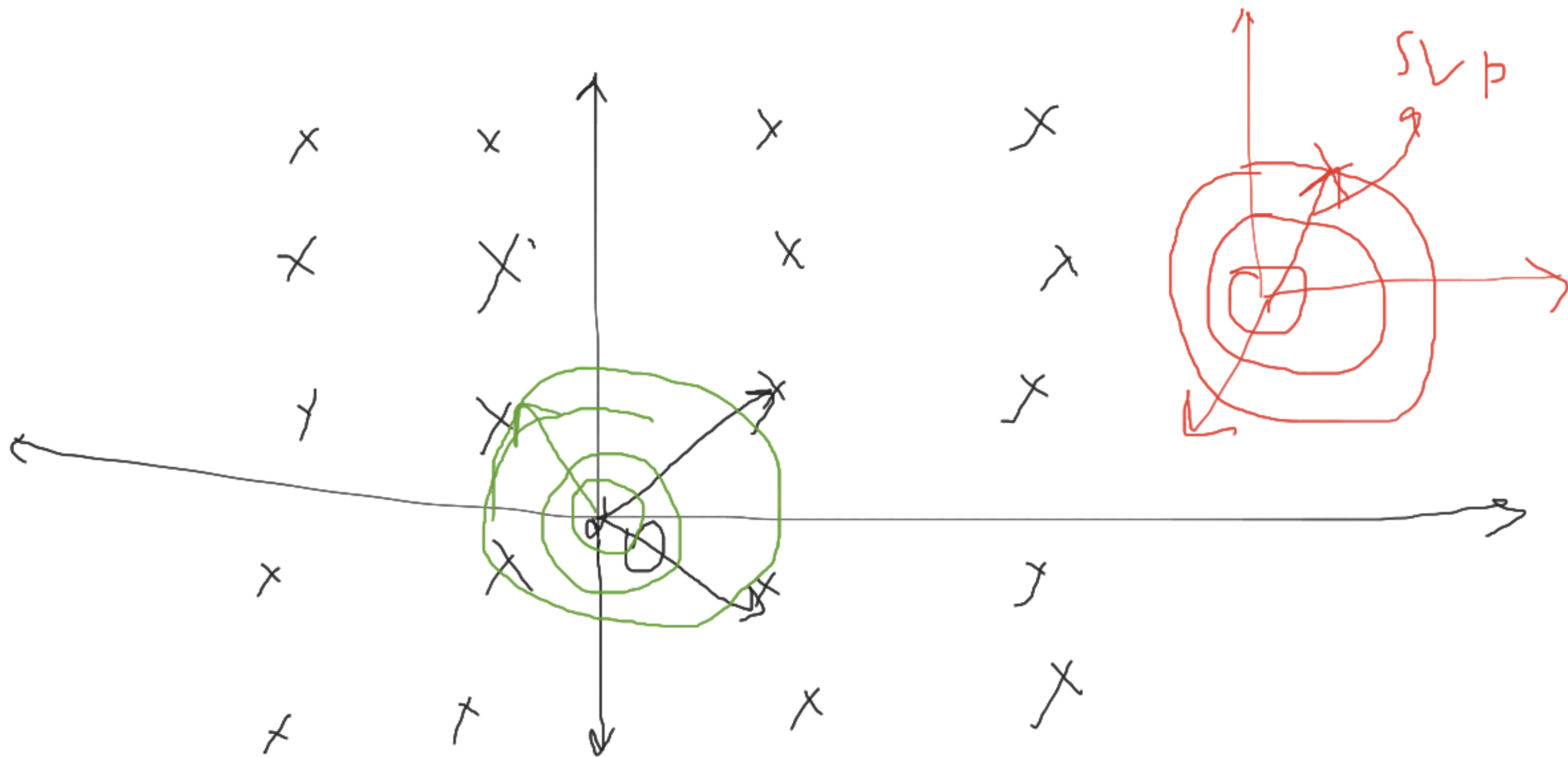
$$\checkmark \quad A_n + \text{bxt} = y$$

find x

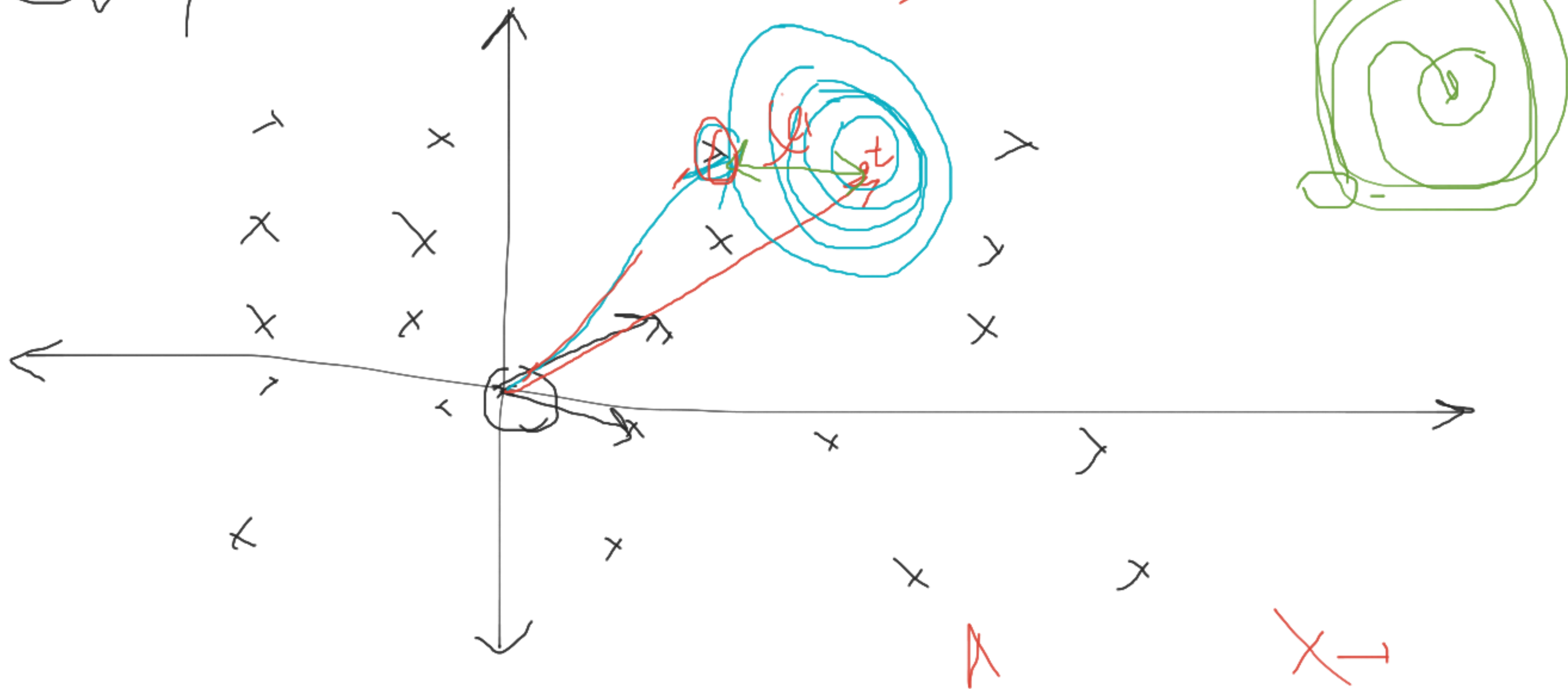
$$\left[\right] \quad \left[\right] \quad \left[\right]$$

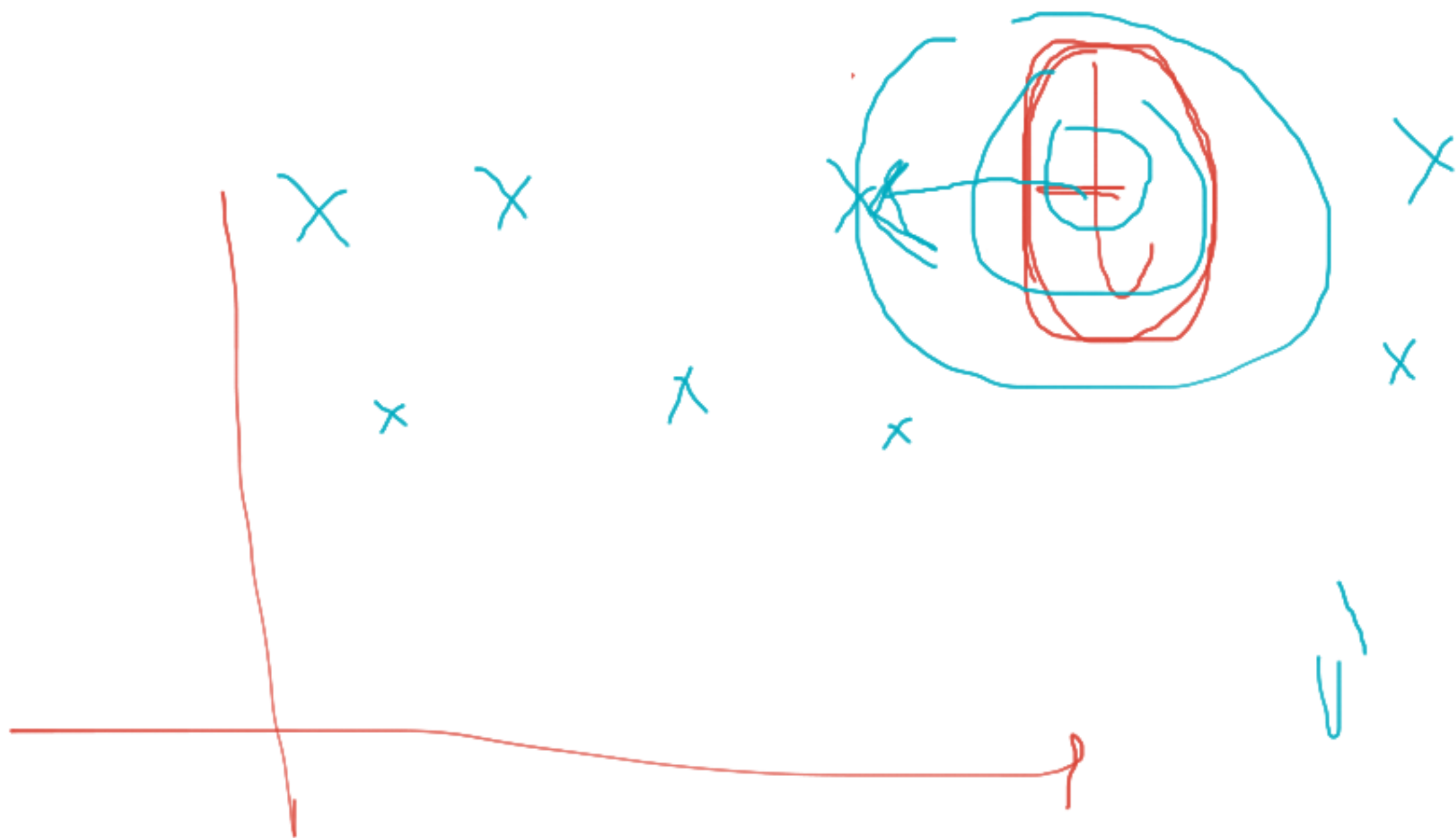
$A_n + b = 0$

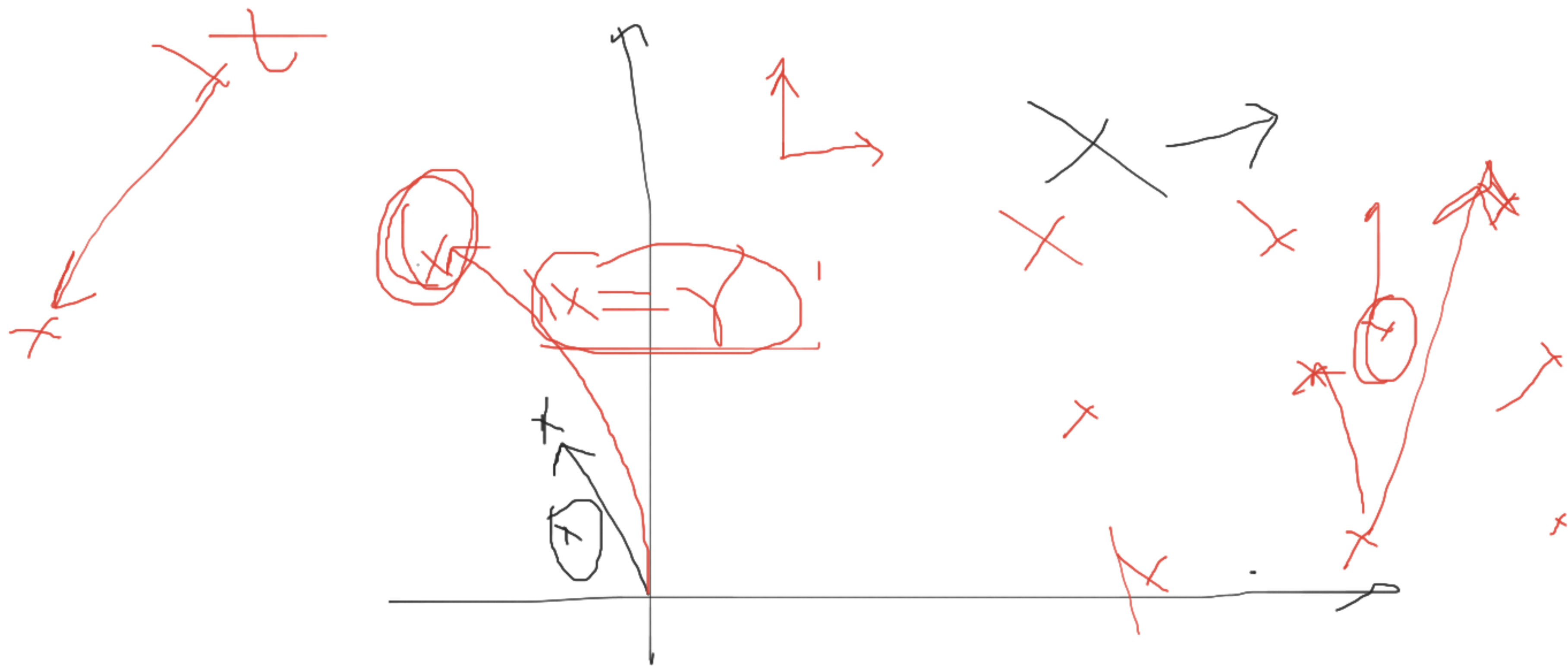
$$\underline{\underline{A_n + b = y}}$$



CVP







|| 8 ||

[M]

↗

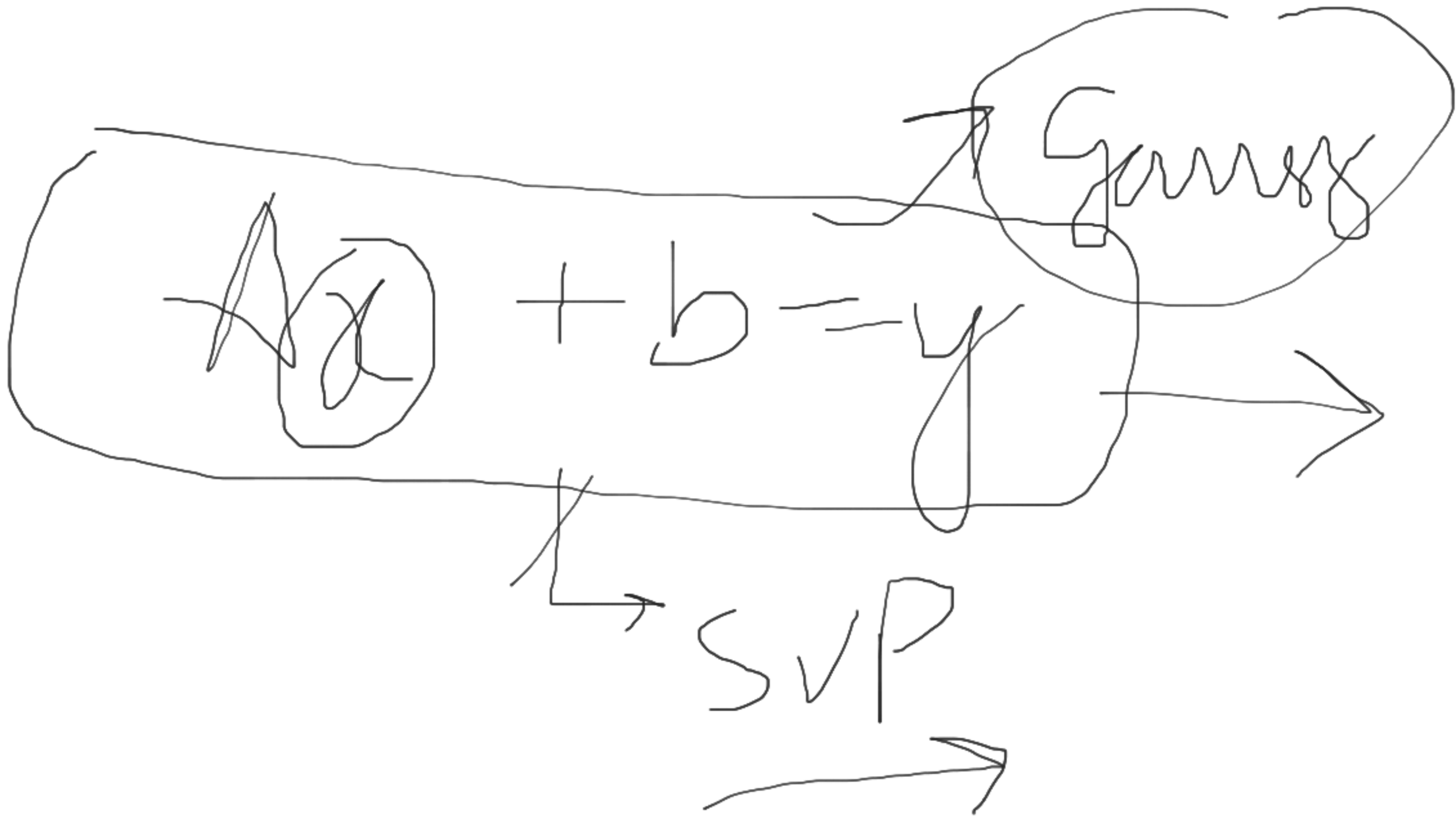
^

|| v ||

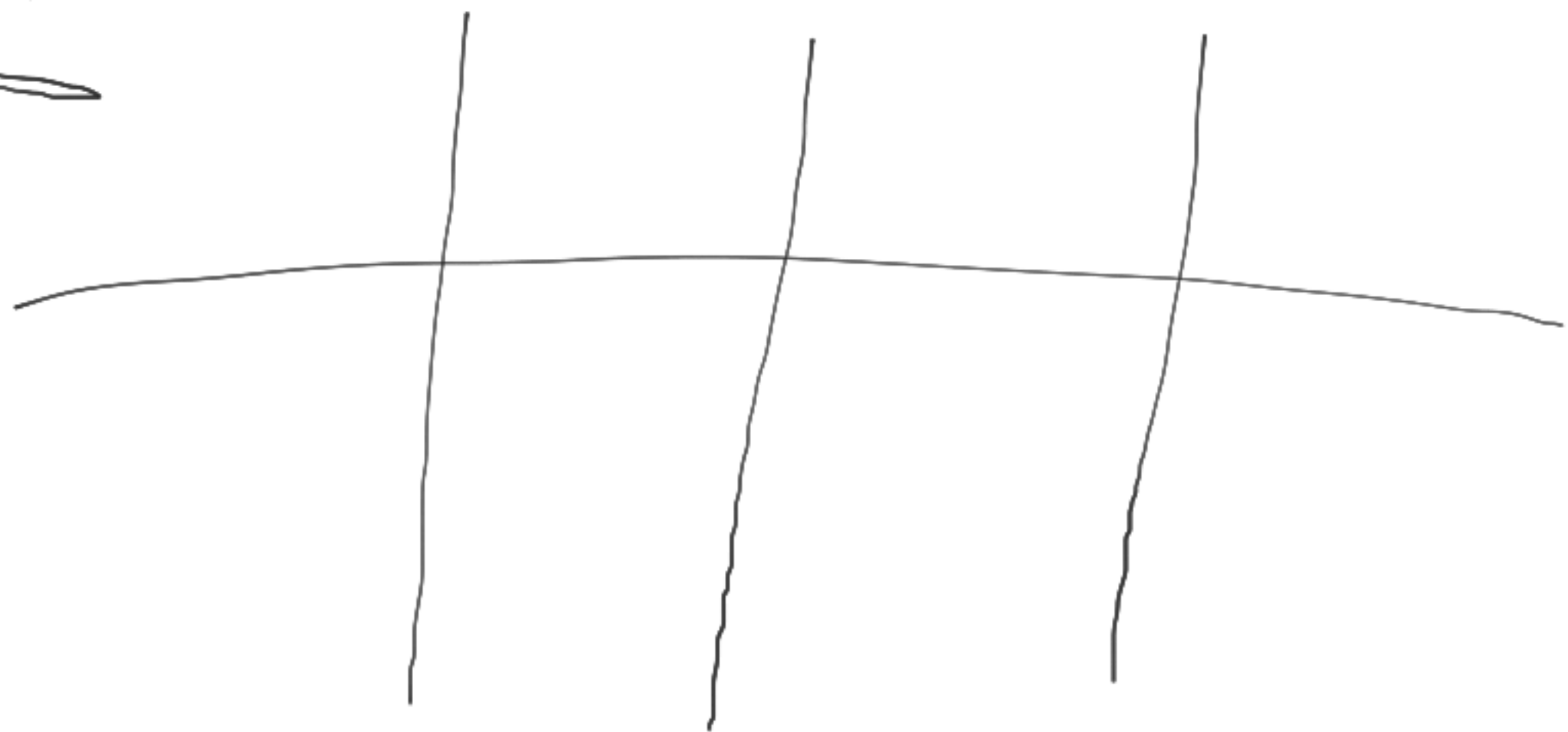
=

Ⓢ

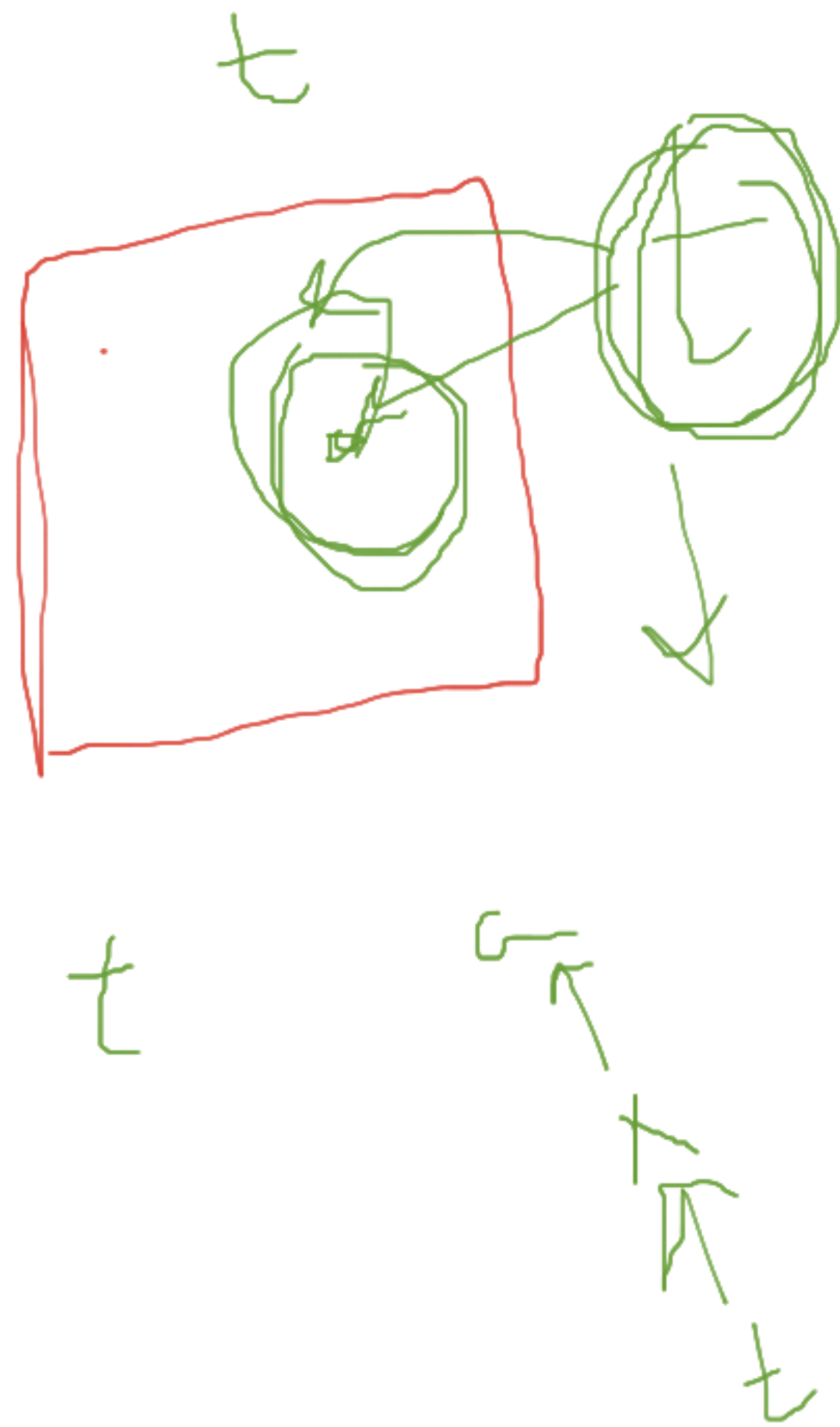
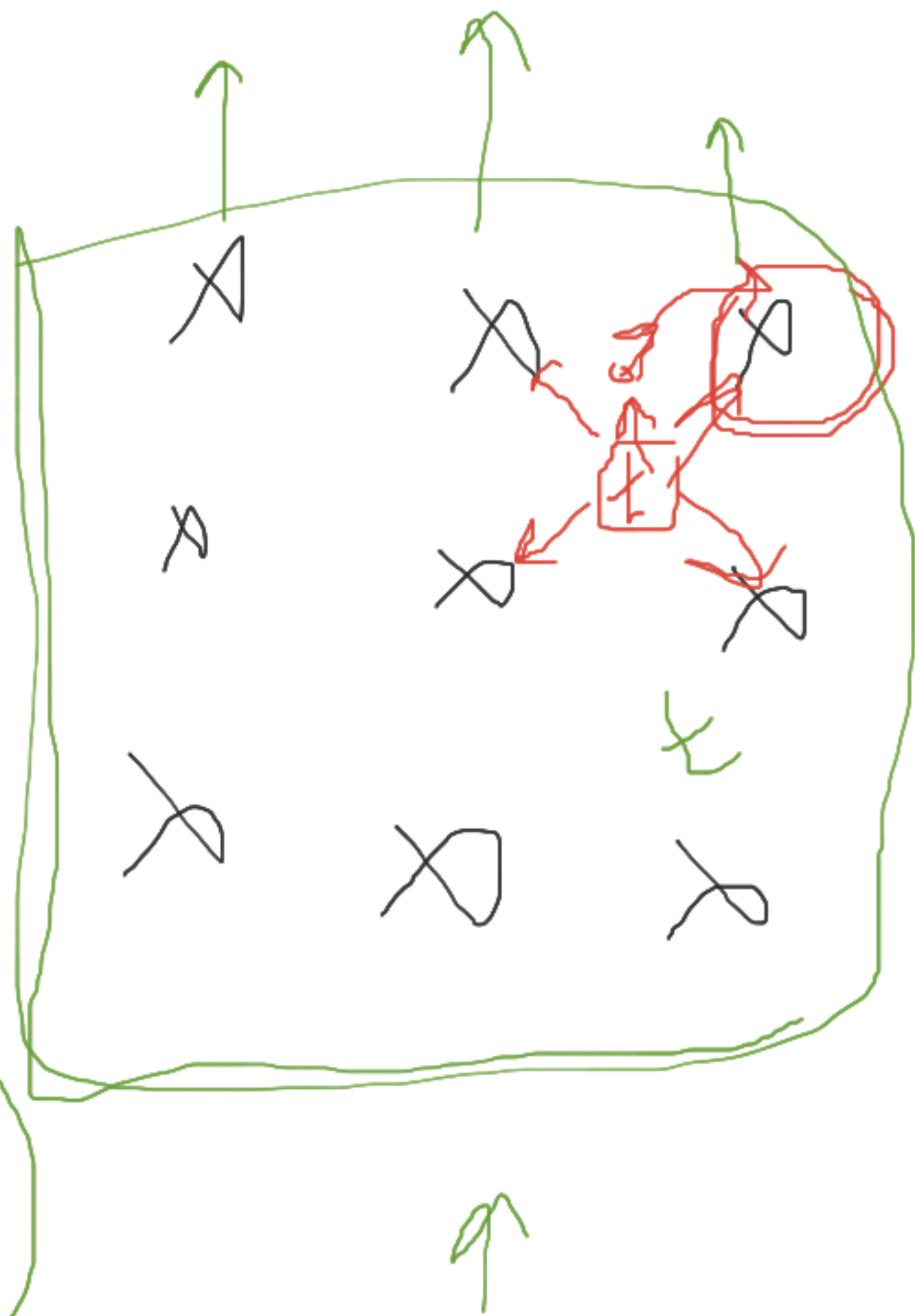


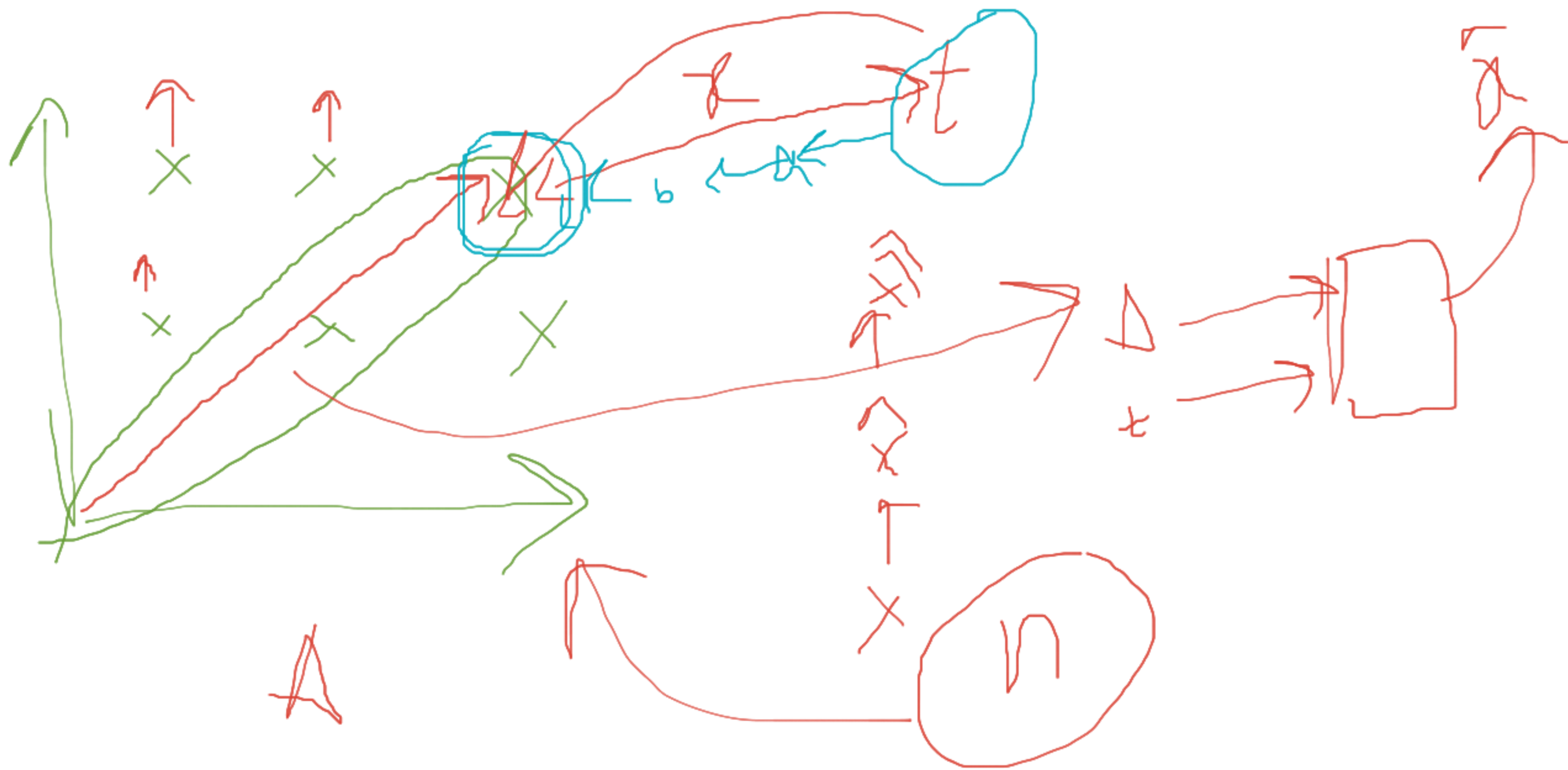


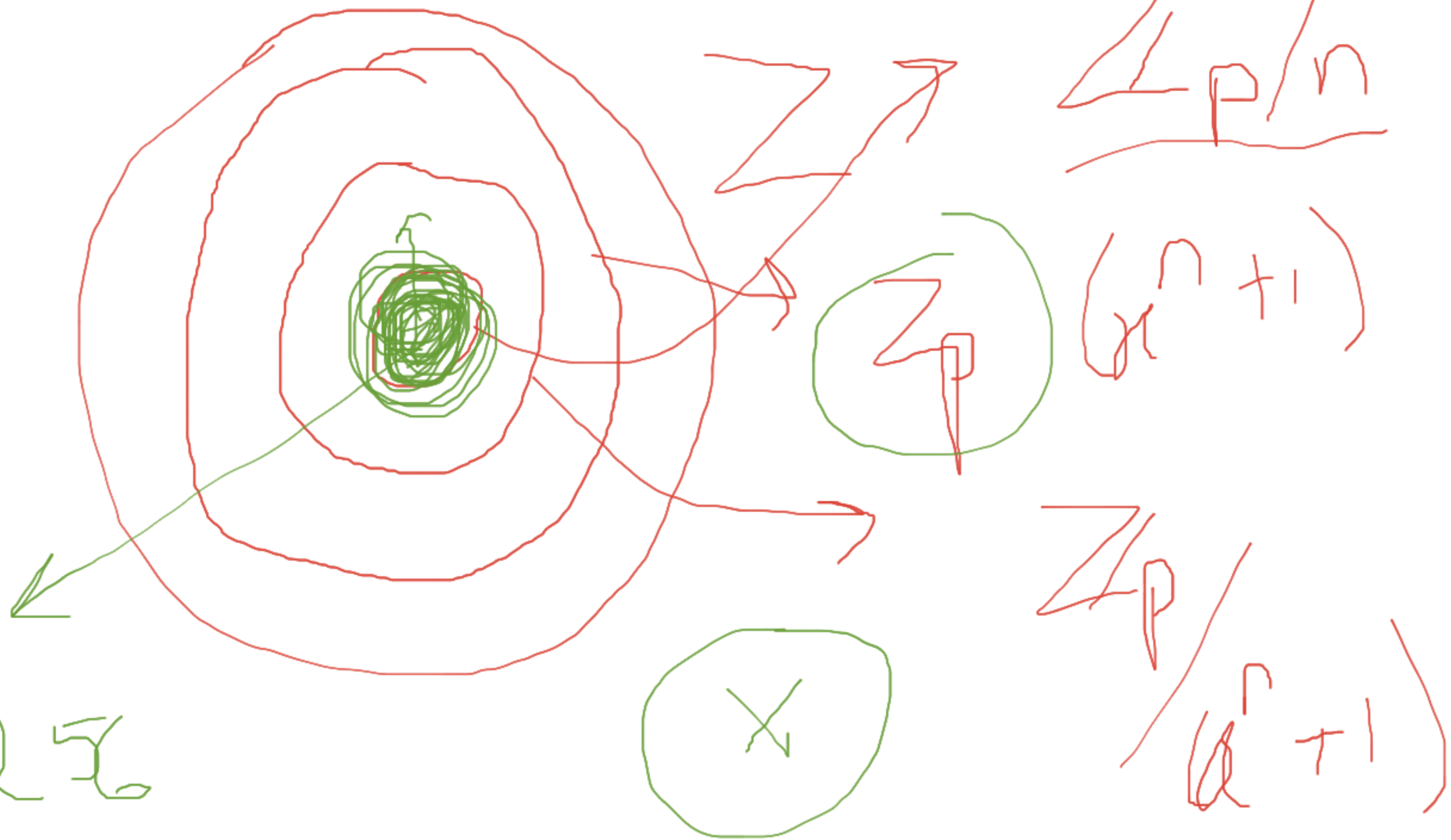
CVP



~~huhai~~



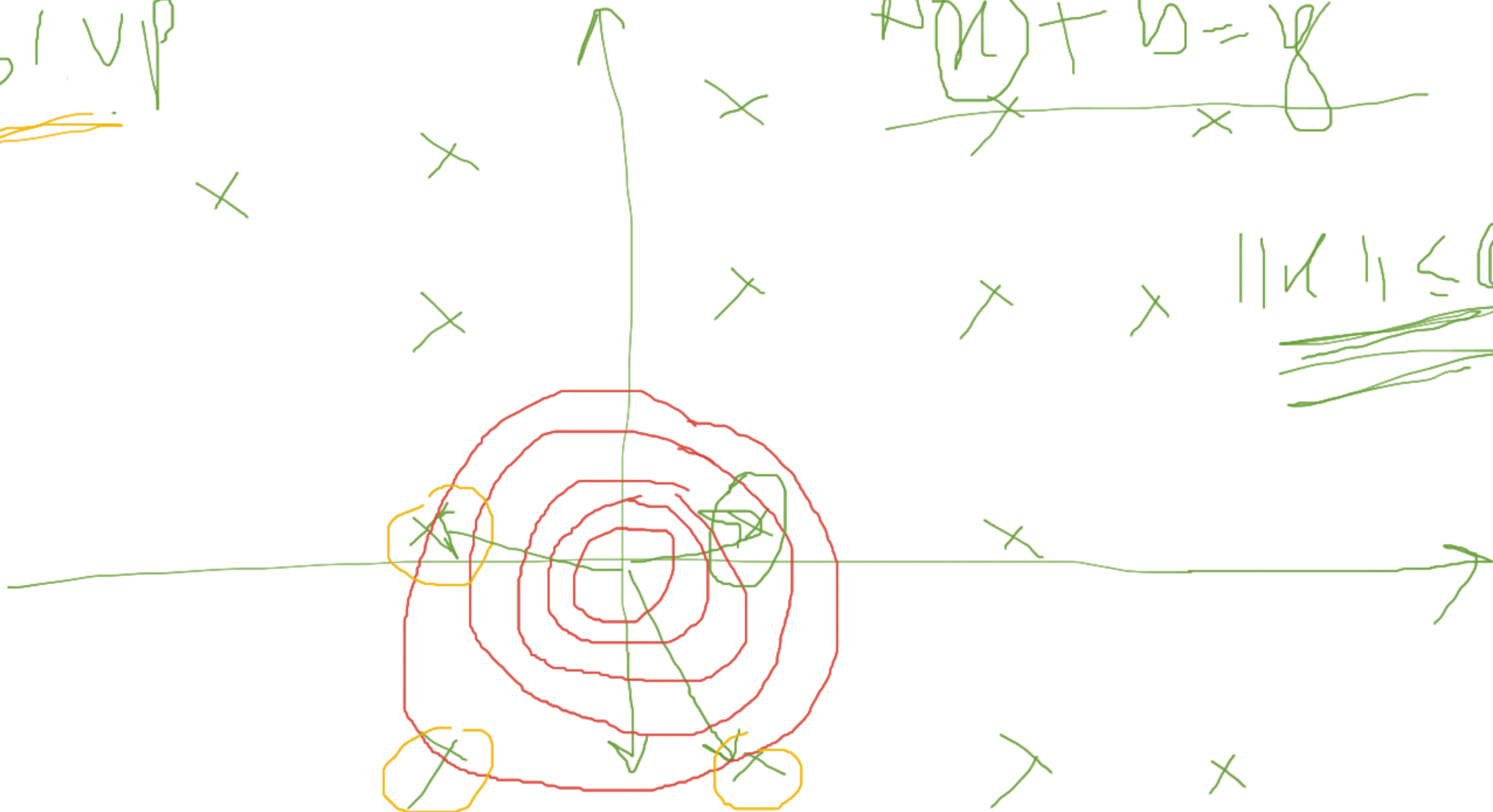




1, 256

SIVP

$$A \circledast + B = \mathcal{V}$$



$$\|v\| \leq 1$$

SIS

\mathbb{Z}^n



a_1



a_1

$\rightarrow \text{mod}$



a_n



$\frac{\mathbb{Z}^n}{\mathbb{Z}^{n+1}}$

