

$$\Rightarrow V \begin{pmatrix} 3 & 2 \\ -7 & 2 \end{pmatrix} = \frac{1}{\sqrt{2}}$$

$$\begin{array}{c} z_1^3 z_1^2 z_1^2 z_1^{-7} \\ \hline z_2^3 z_2^2 z_2^2 z_2^{-7} \end{array}$$

- $\|V(x)\| = 1$

- $\langle V(x_1), V(x_2) \rangle = \langle \frac{1}{\sqrt{n}} \mathbf{1}, V(x_2 - x_1) \rangle$

- $V \left(\begin{array}{c|c} 1 & 0 \\ \hline 0 & 0 \end{array} \right), V \left(\begin{array}{c|c} 1 & 0 \\ \hline 1 & 0 \end{array} \right)$ ONB ; $V \left(\begin{array}{c|c} 1 & 0 \\ \hline 0 & 0 \end{array} \right), V \left(\begin{array}{c|c} 0 & 1 \\ \hline 0 & 0 \end{array} \right)$ ONB s.t.b.

$$G(\gamma) := \left| \left\langle \frac{1}{\sqrt{n}} \mathbf{1}, v(\gamma) \right\rangle \right|^2$$

↳

- $G(0) = 1$
- $G(\gamma) \in [0, 1]$,

- $\sum_{k=1}^n G(\gamma + e_k) = 1$

ahol $(e_k)_{k=1}^n$ az az csupa nulla

1 db 1-es egy sor / oszlop mentén

$$\bar{G}(\gamma) := \frac{1}{n!n!} \sum G(\text{sor, oszlop permutációi } \gamma\text{-nál})$$

$$\tilde{G}(\gamma) := \frac{1}{2} \bar{G}(\gamma) + \frac{1}{2} \bar{G}(-\gamma)$$

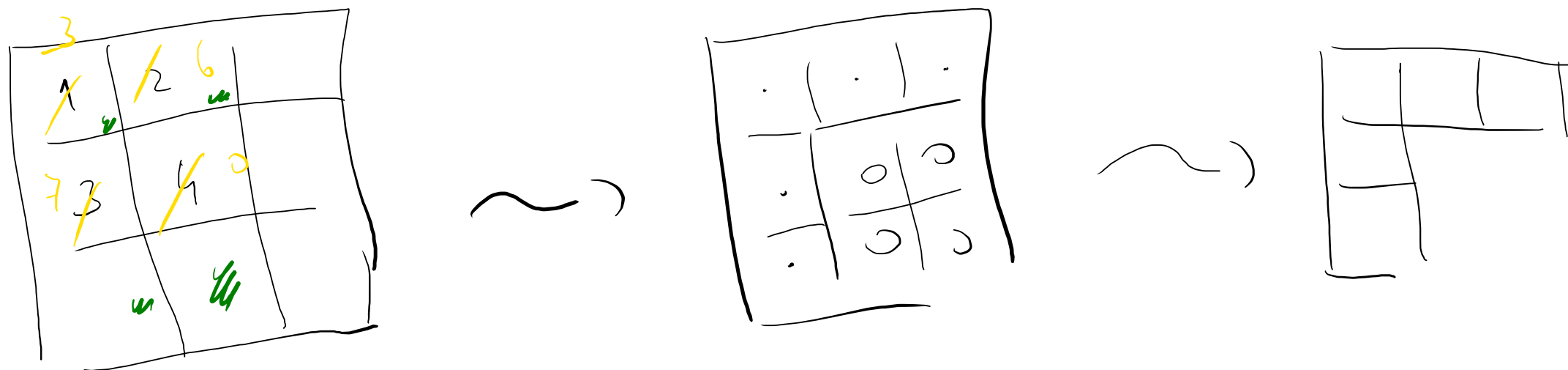
pl.: $e_1 = \begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix}$, $e_2 = \begin{bmatrix} 0 & 1 \\ 0 & 0 \end{bmatrix}$

$$G(1, 1, 1, -1, -1, -1) \stackrel{?}{=} 0 \quad \text{New, de ... ez}$$

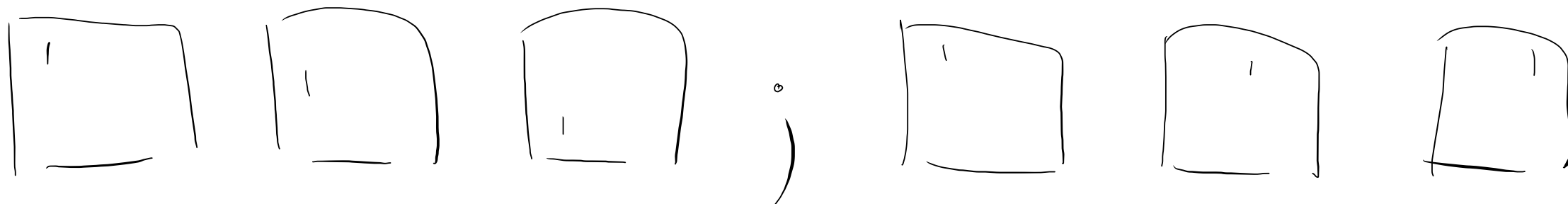
$$G\left(\begin{array}{|c|} \hline \vdots \\ \hline \end{array} \begin{array}{c|c} & \end{array} \right) \stackrel{?}{=} 0 \quad \text{még lehet!}$$

Extra egyenletek:

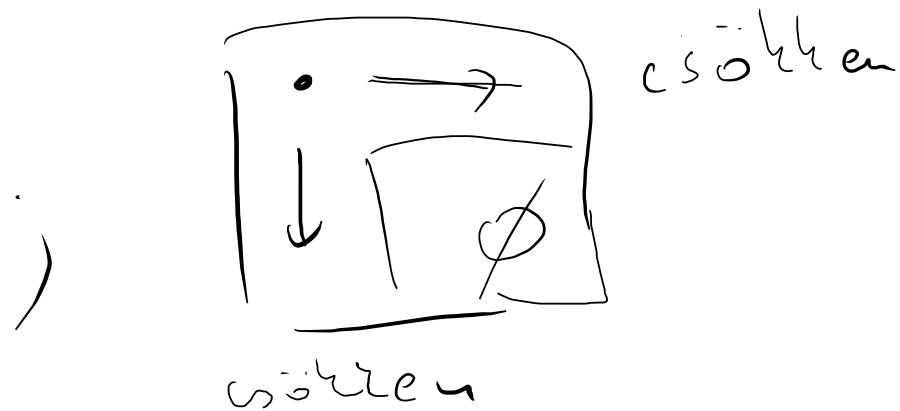
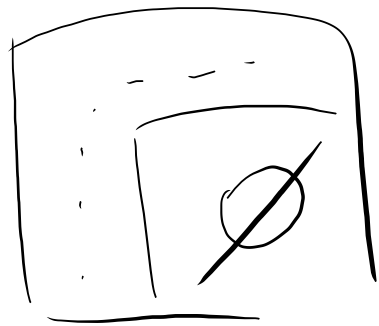
$$G\left(\begin{array}{|c|} \hline \text{diagonal stripes} \\ \hline \end{array} \right) = G\left(\begin{array}{|c|} \hline \text{diagonal stripes with signs} \\ \hline \end{array} \right)$$



Csak 2 parketta-egyenlet lesz:



Bela'tható: minden év. osztályban
van olyan x , amely:



~~De: egyértelműség~~

$$\begin{array}{|c|c|c|} \hline 3 & 1 & -1 \\ \hline -1 & 0 & 0 \\ \hline -2 & 0 & 0 \\ \hline \end{array} \sim \begin{array}{|c|c|c|} \hline 0 & 4 & -1 \\ \hline 0 & -1 & 0 \\ \hline 0 & -2 & \\ \hline \end{array} \sim \begin{array}{|c|c|c|} \hline 4 & 0 & -1 \\ \hline -1 & 0 & 0 \\ \hline -2 & 0 & 0 \\ \hline \end{array} \Rightarrow \begin{array}{|c|c|c|} \hline 3 & 1 & -1 \\ \hline -1 & & \\ \hline -2 & & \\ \hline \end{array} \sim \begin{array}{|c|c|c|} \hline 4 & 0 & -1 \\ \hline -1 & & \\ \hline -2 & & \\ \hline \end{array}$$

$$\min_{\max} \tilde{G} \left(\begin{array}{c} \boxed{\gamma} \\ \boxed{0} \end{array} \right) \stackrel{?}{=} \min_{\max} \tilde{G} \left(\boxed{\gamma} \right)$$

$$? H: \tilde{G}_H \left(\boxed{\gamma} \right) \notin \left[\min_{\max} \tilde{G} \left(\begin{array}{c} \boxed{\gamma} \\ \boxed{0} \end{array} \right), \max_{\max} \tilde{G} \left(\begin{array}{c} \boxed{\gamma} \\ \boxed{0} \end{array} \right) \right]$$

$$\tilde{G} \left(\begin{array}{|c|} \hline \text{orange bar} \\ \hline \end{array} \begin{array}{|c|} \hline 0 \\ \hline \end{array} \right) = \tilde{G}_1 \left(\begin{array}{|c|} \hline \text{orange bar} \\ \hline \end{array} \right) ; \quad \tilde{G} \left(\begin{array}{|c|} \hline \text{blue bar} \\ \hline \end{array} \begin{array}{|c|} \hline 0 \\ \hline \end{array} \right) = \tilde{G}_2 \left(\begin{array}{|c|} \hline \text{blue bar} \\ \hline \end{array} \right)$$

Kérdés: van megoldás?

$$4 \tilde{G} \left(\begin{array}{|c|} \hline +2 \\ \hline \end{array} \begin{array}{|c|c|c|} \hline 0 & -1 & -1 \\ \hline \end{array} \right) + \tilde{G} \left(\begin{array}{|c|} \hline +1 \\ \hline \end{array} \begin{array}{|c|c|} \hline 0 & -1 \\ \hline \end{array} \right) + \tilde{G} \left(\begin{array}{|c|} \hline +2 \\ \hline \end{array} \begin{array}{|c|c|c|} \hline 0 & 0 & -2 \\ \hline \end{array} \right) = 1$$

$$5 \tilde{G} \left(\begin{array}{c|c} +1 & 0|-1 \end{array} \right) + \tilde{G}_1 \left(\begin{array}{c} \text{orange bar} \end{array} \right) = 1$$

$$4 \tilde{G} \left(\begin{array}{c|c} +2 & 0|-1|-1 \end{array} \right) + \tilde{G} \left(\begin{array}{c|c} +1 & 0|-1 \end{array} \right) + \tilde{G} \left(\begin{array}{c|c} +2 & 00-2 \end{array} \right) = 1$$

...

$$\begin{array}{|c|cc}
 1 & 1 & 1 \\
 \hline
 - & - & - \\
 - & - & - \\
 - & - & -
 \end{array}
 =
 \begin{array}{|c|cc}
 -2 & 1 & 1 \\
 \hline
 \delta & &
 \end{array}
 \rightsquigarrow \tilde{G}_1$$

$$\begin{array}{|c|c}
 +3 & \tilde{\delta} \\
 \hline
 - & - \\
 - & - \\
 - & -
 \end{array}
 \rightsquigarrow \tilde{G}_2$$