

mult. prost. V nad $\mathbb{K} \neq \mathbb{R}_2$

$$u = -u \Rightarrow u = 0$$

nad \mathbb{R}_2 užit, tu j

$$v \in V$$


$$u = -u$$

$$u(x) = v(x) + e(x)$$

1 dfg: $e(x) = x^i$ ko wipl' $0 \leq i < n$

$p(x)$ ireduktibil' $p(0) = 1, p(1) = 1$
 \Rightarrow netil' $x^i \Rightarrow$ dfg j wyprawa.

2 dfg: $e(x) = x^i + x^j$ $0 \leq i < j < n$.

$p(x) \nmid x^j$ $p(x) \nmid 1 + x^{j-i}$ ko $j-i < 2^m - 1$
 $p(x)$ ireduktibil' \Rightarrow netil' an $x^i(1 + x^{j-i}) = x^i + x^j$ 

$x+1$ je delitelni $x+1$ e del' $q(x)$.

$x+1$ kontrolni parit

$q(x)$ deljiv najesbe off.

$$v(x) = r(x) + x^{n-k} m(x)$$

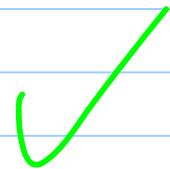
$$m(x) = m_1(x) + m_2(x)$$

$$\text{sytle } v = \text{ditu}' \quad x^{n-k} (m_1(x) + m_2(x))$$

$$\Rightarrow \text{sytle } v(x) = r_1(x) + r_2(x)$$

$$v(x) = \left(r_1(x) + x^{n-k} (m_1(x)) \right) + \left(r_2(x) + x^{n-k} (m_2(x)) \right)$$

ADITIVNOST



$$1 + x + x^3$$

Wurteilung $p(x)$

dividiert
 $\underline{\underline{2, 4}}$

$$m(x) \mapsto z(x)$$

$$m_1(x) = x^0, \quad m_2(x) = x^1, \quad m_3(x) = x^2$$

Gr. (6, 3)

100

$$z_1(x) = (1+x) + x^3$$

010

$$z_2(x) = (x+x^2) + x^3$$

001

$$\begin{aligned} + x^3 : (x^3 + x + 1) &= 1 \\ + x^3 : 1 \cdot (x^3 + x + 1) + (x + 1) \\ x^3 : (x^3 + x + 1) &= x \\ x^2 + x \\ + x^2 : (x^3 + x + 1) &= x^2 + 1 \\ + x^2 / x^2 + x + 1 \end{aligned}$$

$$z_3(x) = (1+x+x^2) + x^3$$

\Rightarrow

1	0	1
1	1	1
0	1	1
1	0	0
0	0	0
0	0	1

Vekt: $g: (\mathbb{R}_2)^2 \xrightarrow{g} (\mathbb{R}_2)^n$

$$G = \left(\begin{array}{c} \mathbb{P} \\ \mathbb{I}_2 \end{array} \right) \Bigg\}^n \quad H = \left(\begin{array}{c} \mathbb{I}_{n-1} \\ \mathbb{P} \end{array} \right)$$

$$h: (\mathbb{R}_2)^n \xrightarrow{h} (\mathbb{R}_2)^{n-1}$$

(1) ker h = Im g

(2) $H \cdot n = 0 \implies n \cdot y$ ~~like this~~

hogynek székletet

$$H \cdot S = \begin{pmatrix} \mathbb{F}_{n-1} & P \end{pmatrix} \cdot \begin{pmatrix} P \\ \mathbb{F}_n \end{pmatrix} = P + P = 0$$

⇒ ring C kerek

valamint \mathbb{Z}_2 per \mathbb{Z}_2 halmazok halmazai

$$|Ker h| \cdot |Ker h| = |\mathbb{Z}_2^n| = 2^n$$

$$\Rightarrow |Ker h| = 2^n \cdot 2^{n-n} = 2^n$$



! $H = (1 \ 1 \ 1) \dots$ but not least
 $v_0(3,1) - 2v_1$

$\sim v_1 \in (6,3)$

$$T = \left(\begin{array}{ccc|ccc} 1 & 0 & 0 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 & 1 & 1 \\ 0 & 0 & 1 & 0 & 1 & 1 \end{array} \right)$$

