

degree = 3 in  $\mathbb{Z}_2[x]$  (Include 0)

Ex:

$$\begin{array}{cccc} a_3x^3 + a_2x^2 + a_1x + a_0 \\ \uparrow \quad \uparrow \quad \uparrow \quad \uparrow \\ 2 \quad 2 \quad 2 \quad 2 \\ L = 16 \end{array}$$

and by (0, 1, 1, 1)

row each as two elements

2, hence there are 16

poly of degree  $\leq 3$  are  $2^4 = 16$  of  $L = 16$

Ex) degree = 2 in  $\mathbb{Z}_2[x]$  (rank 18)

list of all polynomials of degree 3 in  $\mathbb{Z}_2[x]$  are

- 1)  $x^3$
- 2)  $x^3 + 1$
- 3)  $x^3 + x$
- 4)  $x^3 + x^2$
- 5)  $x^3 + x + 1$
- 6)  $x^3 + x^2 + 1$
- 7)  $x^3 + x^2 + x$
- 8)  $x^3 + x^2 + x + 1$

Temperature: 25.78°C

Accuracy: 899.999

time: 2020-01-20 10:30:16

longitude: 73.8873656

latitude: 18.6731591

Bhosari, Pimpri-Chinchwad, Maharashtra