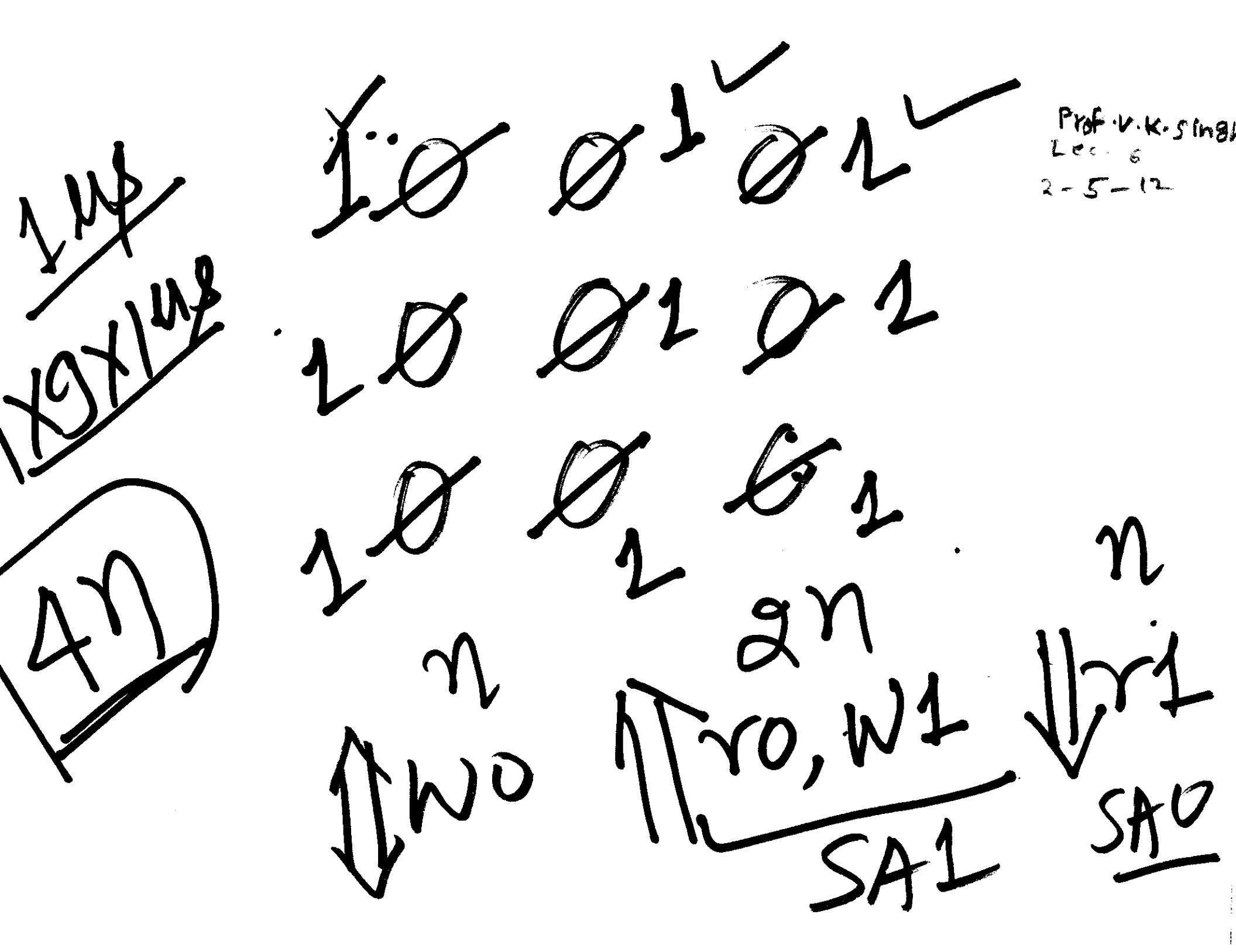
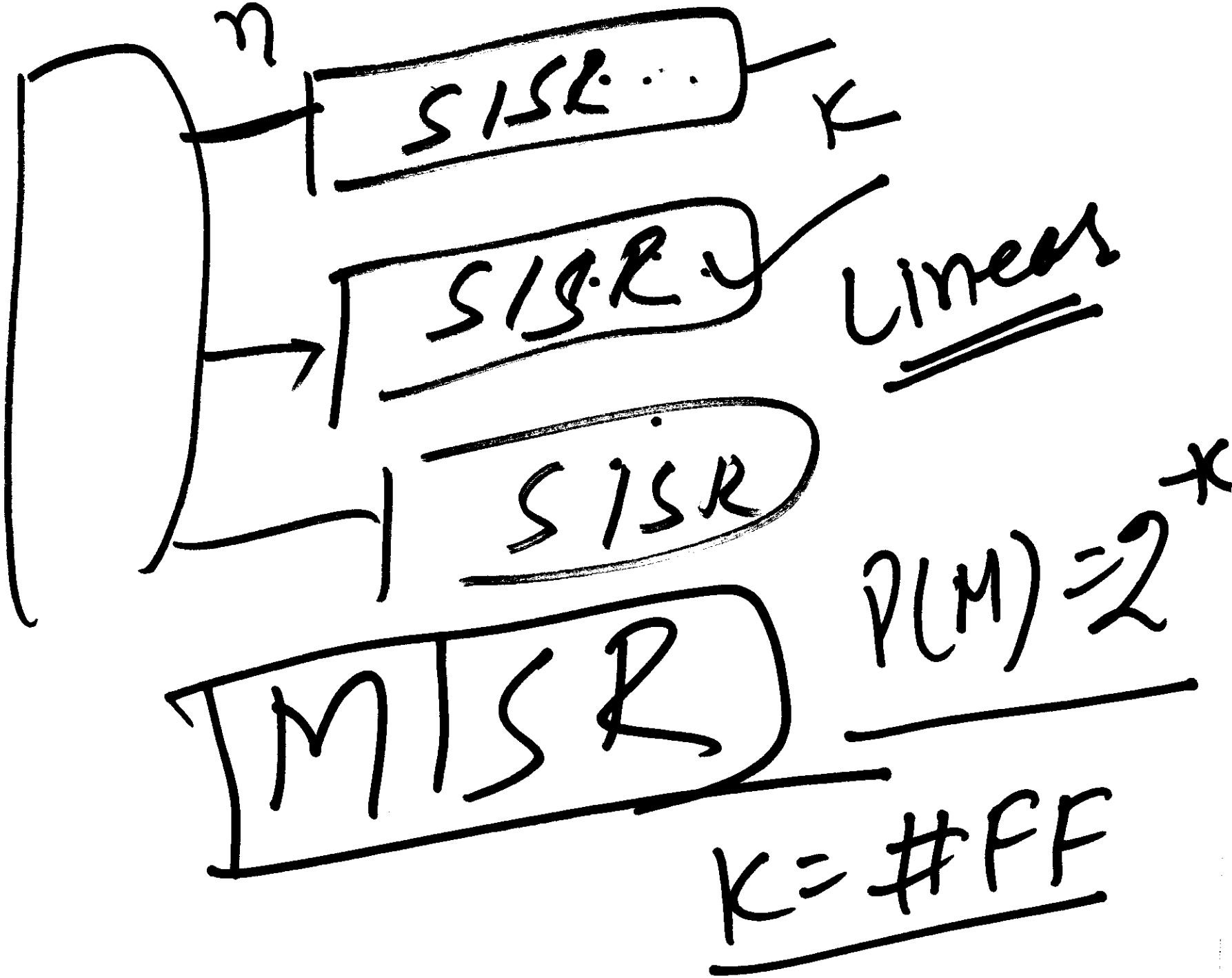
Prof. V. K. Singh
Lec - 6
2-5-12

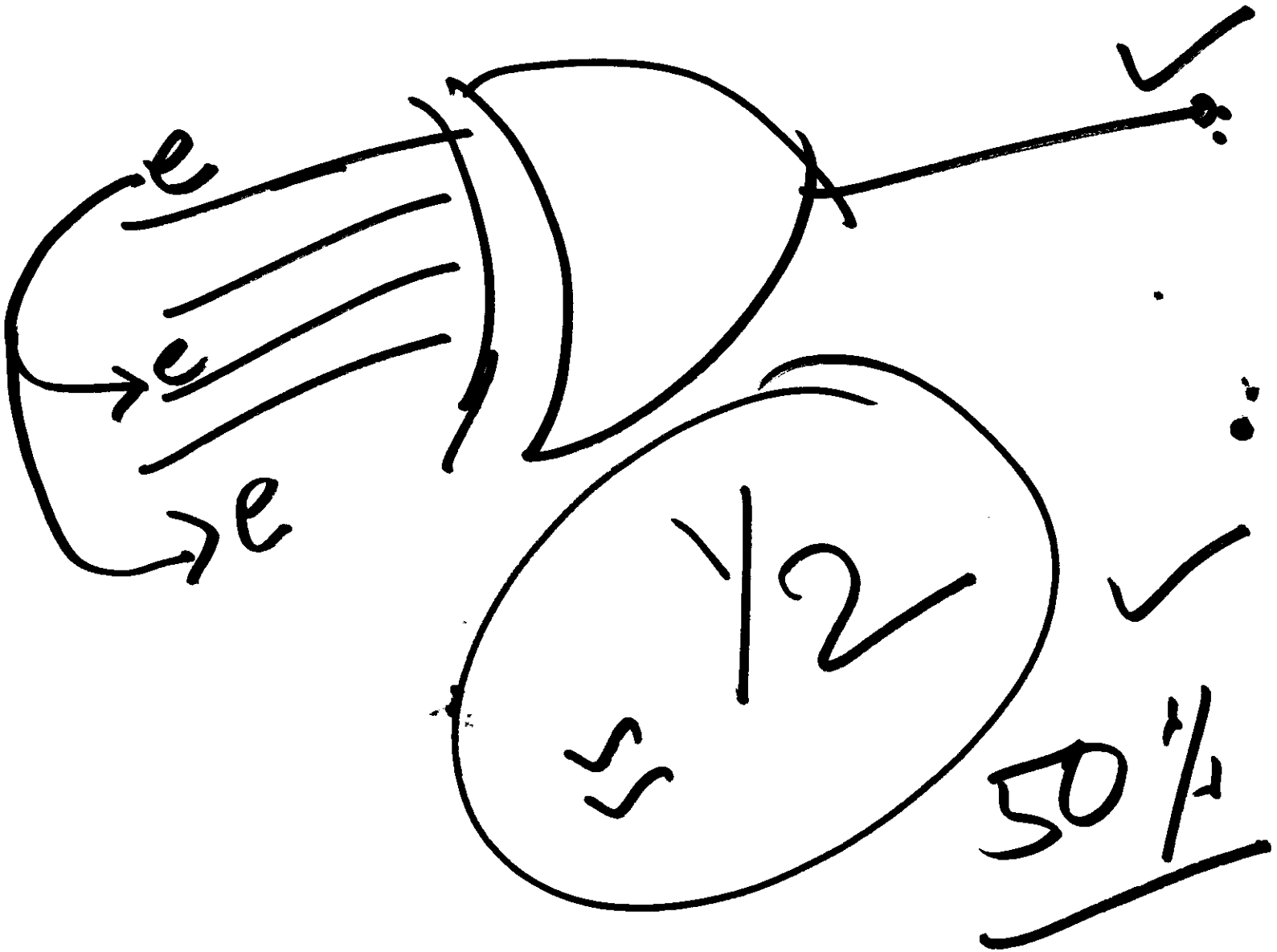
1 μs

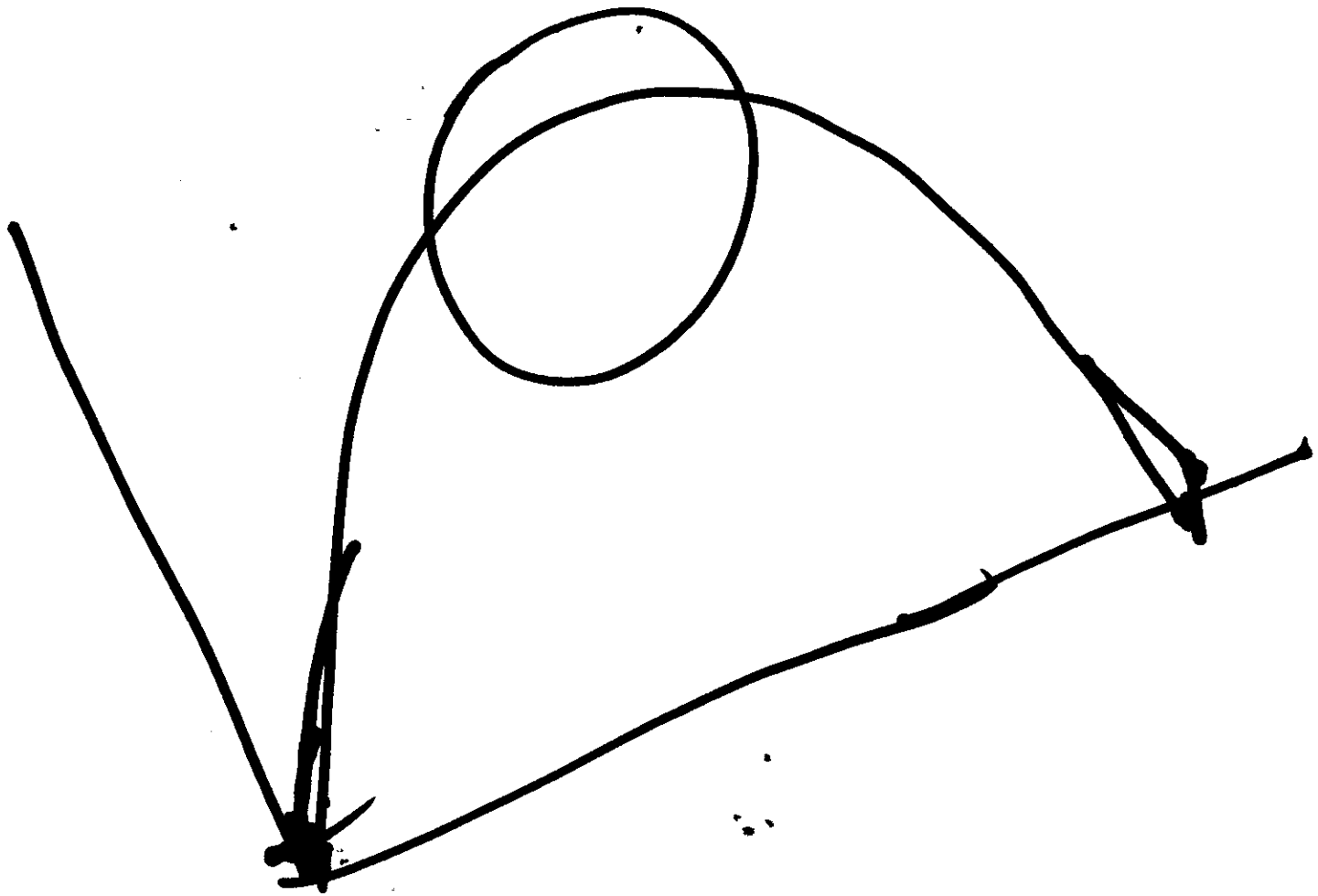
1 x 9 x 1 μs

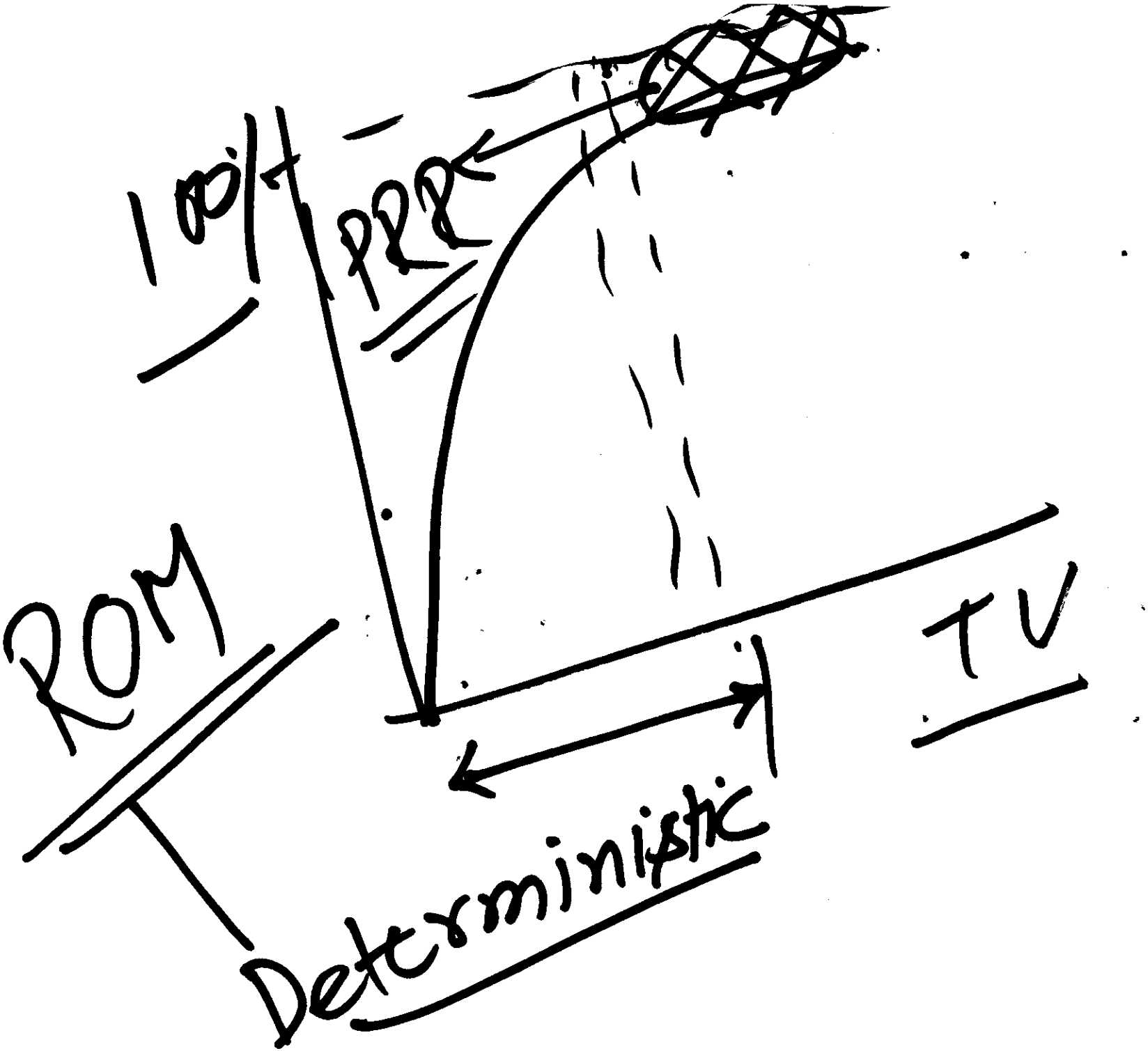
4n

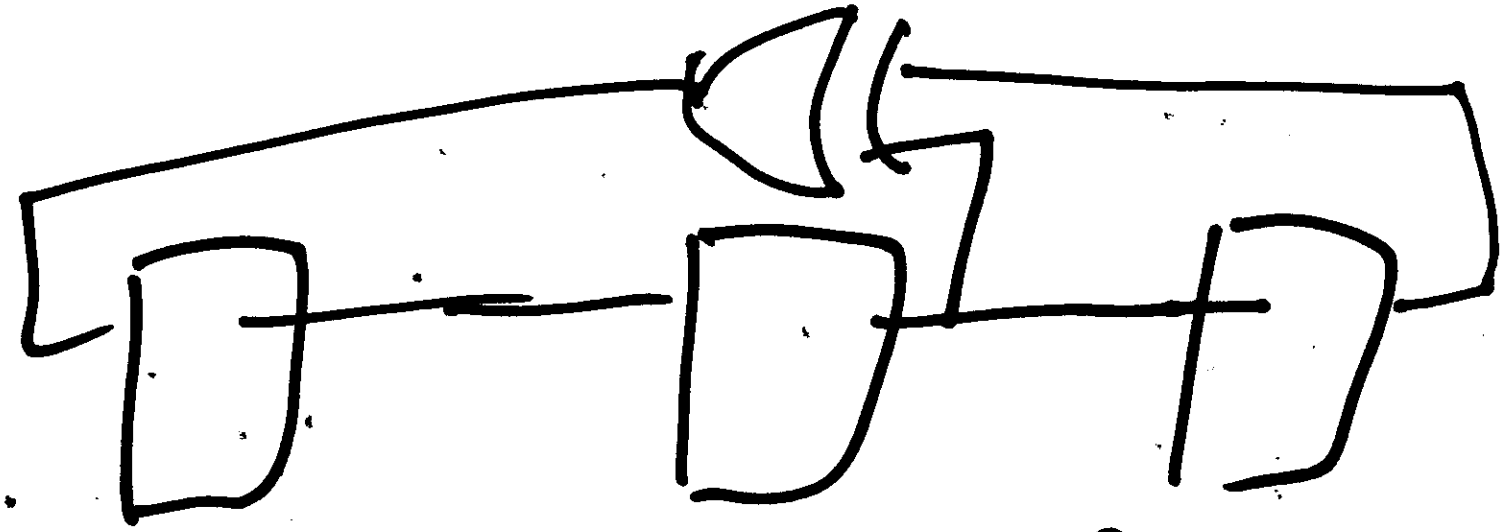



n
SISR...
K
SISR
SISR
Lines
MISR
P(M)=2^K
K=#FF

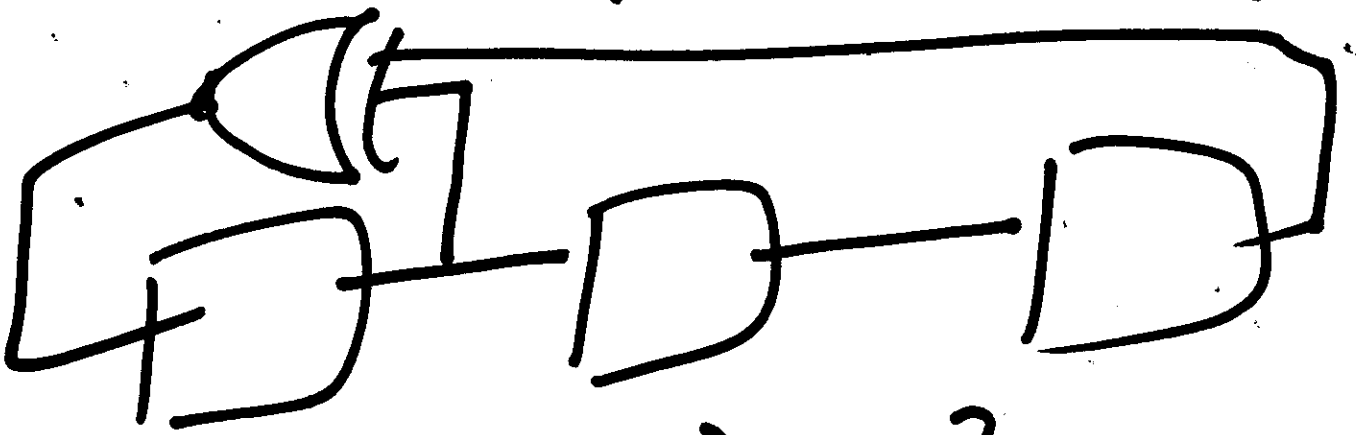

e
e
e
1/2
50%




Light
PPP
ROM
TV
Deterministic



$1+x+x^3$



$1+x^2+x^3$

$$\frac{1+x^k}{1+x^7}$$

$k = 2^n - 1$

$n = 3$

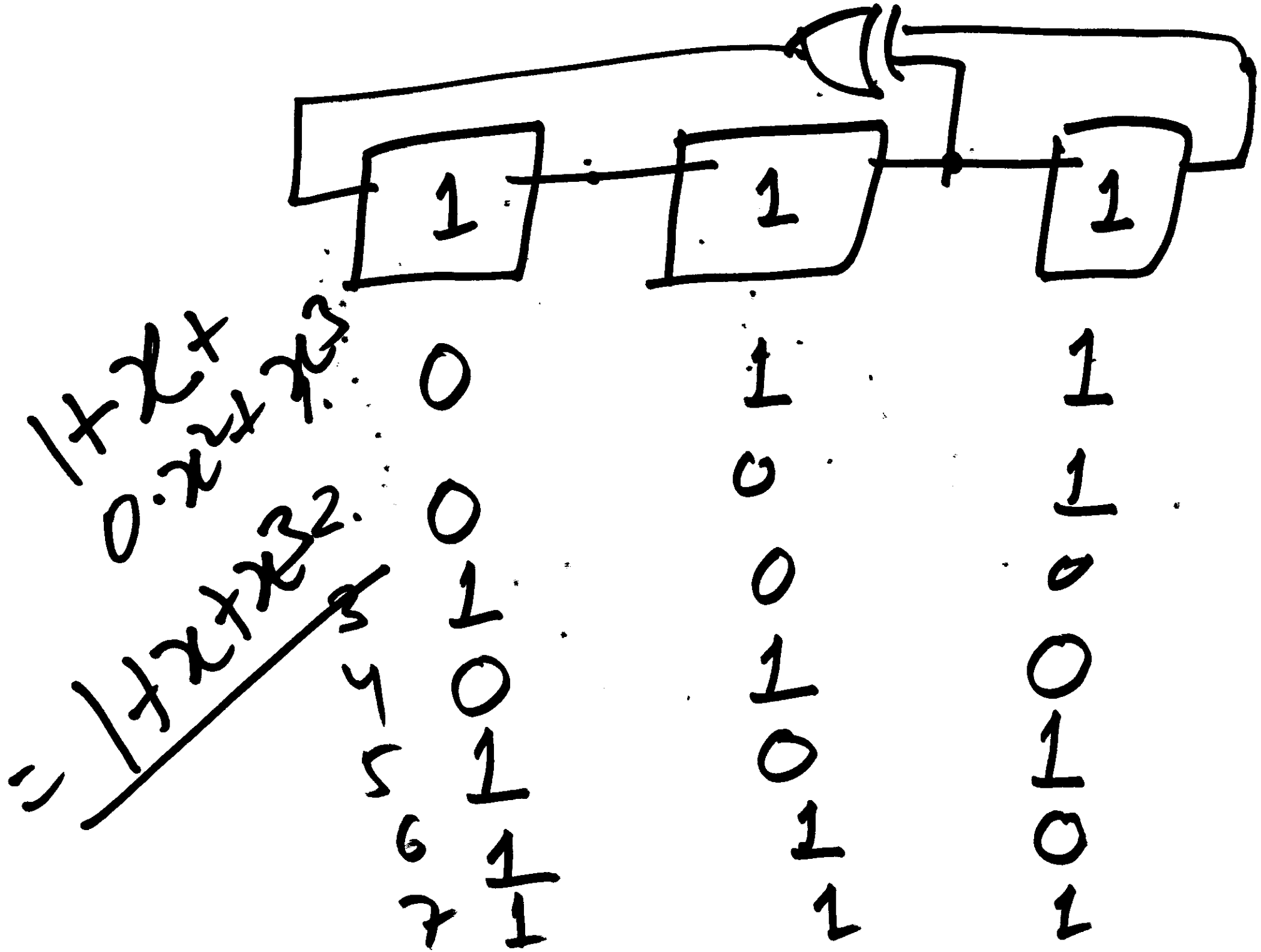
$k = 7$

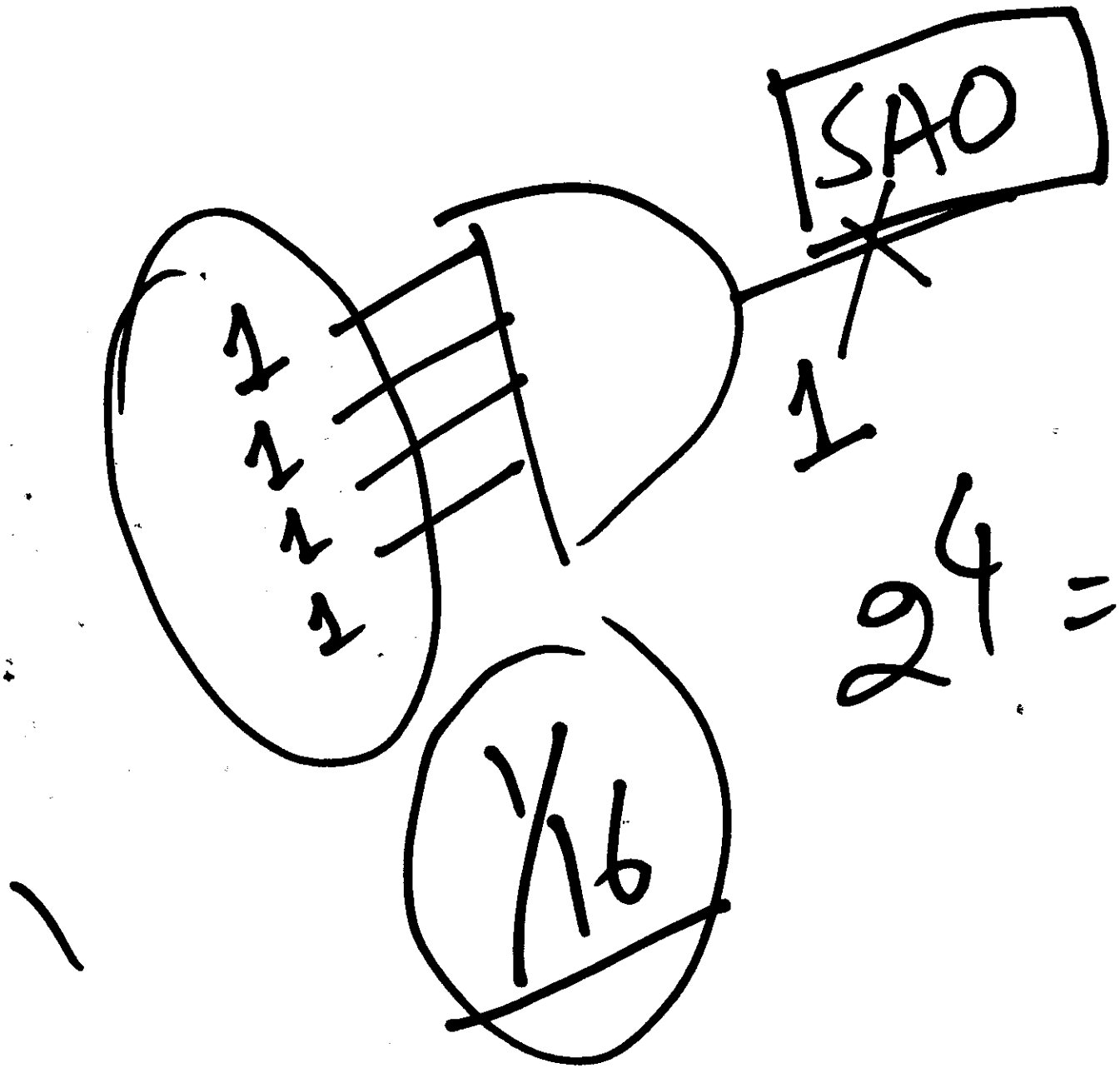
$$= \frac{1+x^7}{(1+x)(1+x+x^3)(1+x^2+x^3)}$$

$1+x^n$

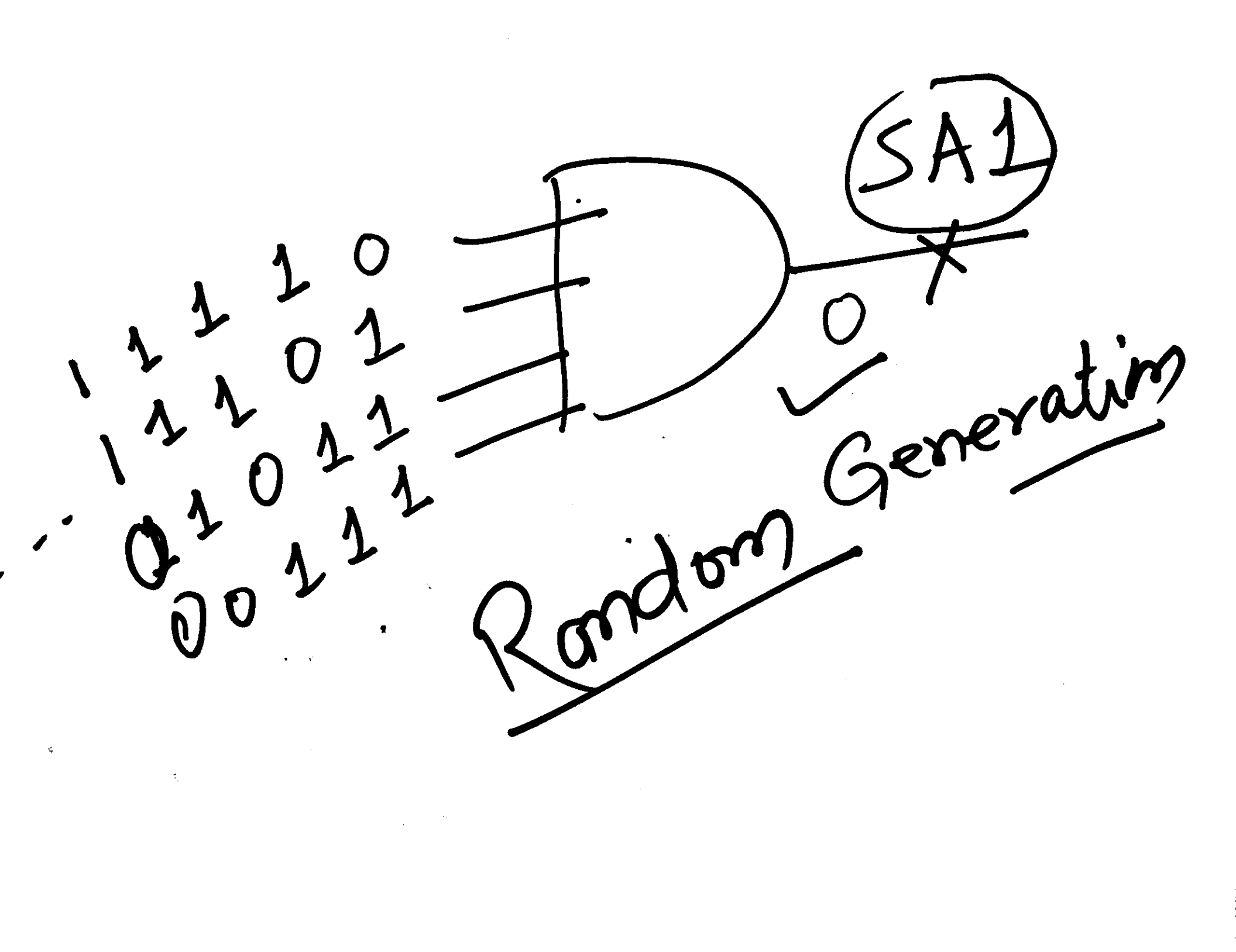
$1+x^3$

$x+x=0$


1
1
1
1+x+x^3
0.x+x^2+x^3
= 1+x+x^2
1 1 0
2 0 1 1
3 0 0 1 0
4 0 1 0 1
5 1 0 1 0
6 1 1 0 1
7 1 1 1



$2^4 = 16$


1 1 1 0
1 1 1 0 1
0 1 0 1 1
0 0 1 1 1
SA1
0
Random Generation

n

2^n

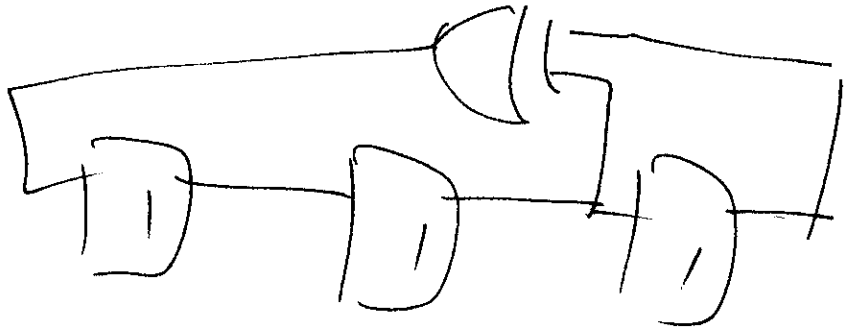
K

2^k

$2^n / 2^k$

$n \gg k$

$P(M) = \dfrac{2^{n-k} - 1}{2^n - 1} \approx 2^{-k}$



1.	1	1	1
2.	0	1	1
3.	0	0	1
4.	1	0	0
5.	0	1	0
6.	1	0	1
7.	1	1	0

8	1	1	1.

$1 + x + x^3$

16MHz ✓

$\frac{1 \times 10^6}{16 \times 10^6} = \frac{1}{16}$

$\frac{10}{16} = .06$

1Mb ✓

$\frac{4 \times 10^6}{.25} \times 4$

$1x$ = time

$\frac{1 \times 10^6}{.06}$

$\frac{10^8}{6}$

16MHz