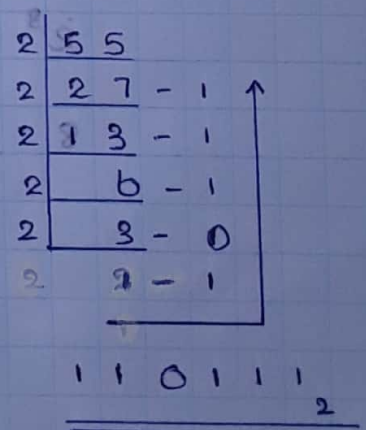
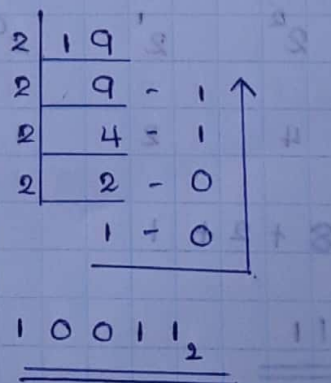
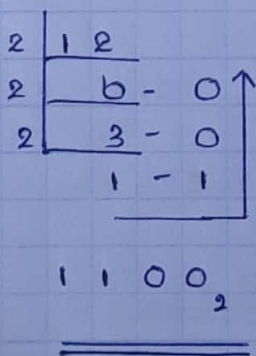


ඒකවනව වෙනස් සංරක්ෂ වලින් බ්ලොක්වලින් සෑදූ නිවැරදි. සම දෙසක අගය නිරූපණය කිරීම සඳහා සංඛ්‍යා, ආචිත, තරම. බ්ලොක්වලින් වලින් සංඛ්‍යා, නිරූපණය තරම. සම කිසි ජීවනව පවතින අගයන් නිරූපණය තල භාගි අගය තුලනයන් (සංඛ්‍යා තුලනයන්) වලින් සංඛ්‍යා, පද්ධතියන් සෑදූ නිවැරදි.

	ආදායක අගය (Base Value)	සංඛ්‍යා (Digits)
ද්විතීය සංඛ්‍යා (Binary)	2	{0, 1}
අෂ්ටමය සංඛ්‍යා (Octal)	8	{0, 1, 2, 3, 4, 5, 6, 7}
දශමය සංඛ්‍යා (Decimal/ Denary)	10	{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10}
ඡන්ද්‍රිකමය සංඛ්‍යා (Hexadecimal)	16	{0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, E, F}
		A - 10 D - 13 B - 11 E - 14 C - 12 F - 15

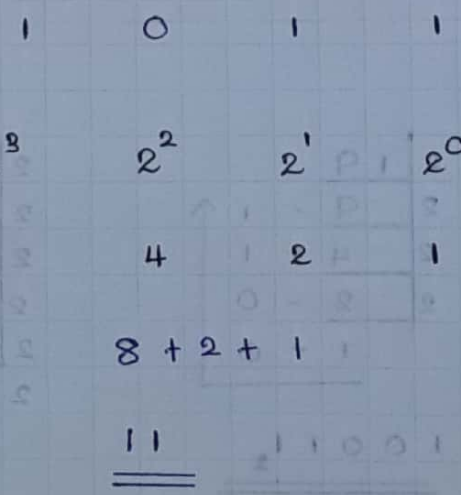
Dec → Bin



	128	64	32	16	8	4	2	1
9					1	0	0	1
13					1	1	0	1
20				1	0	1	0	0
25				1	1	0	0	1
37			1	0	0	1	0	1
43			1	0	1	0	1	1
57			1	1	1	0	0	1
65		1	0	0	0	0	0	1
70		1	0	0	0	1	1	0
78		1	0	0	1	1	1	0
83		1	0	1	0	0	1	1
98		1	1	0	0	0	1	0
105		1	0	0	1	0	0	1
133	1	0	0	0	0	1	0	1

Bin → Dec

Type 01



111011

1 1 0 1 1
 16 8 4 2 1

$$16 + 8 + 2 + 1$$

$$\underline{\underline{27}}$$

01)

32 16 8 4 2 1

$$= 32 + 8 + 2 + 1$$

$$\underline{\underline{43}}$$

02)

32 16 8 4 2 1

$$= 32 + 16 + 8 + 4 + 1$$

$$\underline{\underline{61}}$$

03)

32 16 8 4 2 1

$$= 32 + 16 + 4 + 1$$

$$\underline{\underline{53}}$$

04)

32 16 8 4 2 1

$$= 32 + 8 + 4 + 2$$

$$\underline{\underline{46}}$$

ද්විතම සංඛ්‍යා භාවිතයේ ගණ කිරීම (Counting)

00000	0000	20000	10100
00001	0001	21000	10101
00010	0010	22000	10110
00011	0011	23000	10111
01000	0100	24000	11000
01001	0101	25000	11001
01010	0110	26000	11010
01011	0111	27000	11011
10000	1000	28000	11100
10001	1001	29000	11101
10010	1010	30000	11110
10011	1011	31000	11111
11000	1100	32000	100000
11001	1101	33000	100001
11010	1110	34000	100010
11011	1111	35000	100011
10000	10000	36000	100100
10001	10001	37000	100101
10010	10010	38000	100110
10011	10011	39000	100111
10100	10100	40000	101000

41	-	101001	b3	-	111111
42	-	101010	b4	-	1000000
43	-	101011	b5	-	10000001
44	-	101100	b6	-	10000010
45	-	101101	b7	-	10000011
46	-	101110	b8	-	1000100
47	-	101111	b9	-	1000101
48	-	110000	70	-	1000110
49	-	110001	71	-	1000111
50	-	110010	72	-	1001000
51	-	110011	73	-	1001001
52	-	110100	74	-	1001010
53	-	110101	75	-	1001011
54	-	110110	76	-	1001100
55	-	110111	77	-	1001101
56	-	111000	78	-	1001110
57	-	111001	79	-	1001111
58	-	111010	80	-	1010000
59	-	111011	81	-	1010001
60	-	111100	82	-	10100010
61	-	111101	83	-	10100011
62	-	111110	84	-	10100100

85 - 1 0 1 0 1 0 1
 86 - 1 0 1 0 1 1 0
 87 - 1 0 1 0 1 1 1
 88 - 1 0 1 1 0 0 0
 89 - 1 0 1 1 0 0 1
 90 - 1 0 1 1 0 1 0
 91 - 1 0 1 1 0 1 1
 92 - 1 0 1 1 1 0 0
 93 - 1 0 1 1 1 0 1
 94 - 1 0 1 1 1 1 0
 95 - 1 0 1 1 1 1 1
 96 - 1 1 0 0 0 0 0
 97 - 1 0 0 0 0 0 1
 98 - 1 0 0 0 0 1 0
 99 - 1 0 0 0 0 1 1
 100 - 1 0 0 0 1 0 0

Oct → Bin

0	000
1	001
2	010
3	011
4	100
5	101
6	110
7	111

01. 2 7 4₈
010111100₂

02. 4 0 6₈
100000110₂

03. 3 5 6₈
011101110₂

04. 1 2 0 5₈
001010000101₂

05. 4 3 2 1₈
100011010001₂

06. 5 6 0 7₈

101 110 000 111₂

07. 4 1 0 3₈

100 001 000 011₂

Bin → Oct

01. 011 111 011₂

3 7 3₈

02. 101 110 111₂

5 6 7₈

03. 1000 011 101 111₂

1 0 3 5 7₈

04. 1010 000 101₂

1 0 2 0 5₈

05. 1100 1110 111 101₂

3 1 6 7 5₈

10. 0110 100 1000 10100 100 100 100

Dec → Oct

$$\begin{array}{r} 8 \overline{) 15} \\ \underline{8} \\ 7 \\ \hline \end{array}$$

1 → 7

17₈

$$\begin{array}{r} 8 \overline{) 27} \\ \underline{16} \\ 11 \\ \hline \end{array}$$

3 → 3

33₈

$$\begin{array}{r} 8 \overline{) 125} \\ \underline{80} \\ 45 \\ \underline{40} \\ 5 \\ \hline \end{array}$$

1 → 7

175₈

$$\begin{array}{r} 8 \overline{) 105} \\ \underline{80} \\ 25 \\ \underline{24} \\ 1 \\ \hline \end{array}$$

1 → 5

151₈

Dec → Bin

01) 25

$$\begin{array}{|c|c|c|c|} \hline 0 & 1 & 1 & 0 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 0 & 0 & 1 & 1 \\ \hline \end{array} \begin{array}{|c|} \hline 1 \\ \hline \end{array} \begin{array}{|c|} \hline 0 \\ \hline \end{array}$$

3 1

31₈

02) 43

$$\begin{array}{|c|c|c|c|} \hline 1 & 0 & 1 & 0 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 1 & 0 & 1 & 1 \\ \hline \end{array} \begin{array}{|c|} \hline 1 \\ \hline \end{array}$$

5 3

53₈

03) 39

$$\begin{array}{|c|c|c|c|} \hline 1 & 0 & 0 & 1 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 1 & 1 & 1 & 1 \\ \hline \end{array}$$

4 7

47₈

04) 55

$$\begin{array}{|c|c|c|c|} \hline 1 & 1 & 0 & 1 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 1 & 1 & 1 & 1 \\ \hline \end{array}$$

6 7

67₈

05) 62

$$\begin{array}{|c|c|c|c|} \hline 1 & 1 & 1 & 1 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 1 & 1 & 0 & 0 \\ \hline \end{array}$$

7 6

76₈

06) 69

$$\begin{array}{|c|c|c|c|c|c|c|c|} \hline 0 & 1 & 0 & 0 & 0 & 1 & 0 & 1 & 0 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 1 & 0 & 1 & 0 \\ \hline \end{array}$$

2 1 2

212₈

07) 73

$$\begin{array}{|c|c|c|c|c|c|} \hline 0 & 0 & 1 & 0 & 0 & 1 \\ \hline \end{array} \begin{array}{|c|c|c|c|c|c|} \hline 0 & 0 & 1 & 0 & 0 & 1 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 0 & 0 & 1 & 1 \\ \hline \end{array}$$

1 2 1

121₈

08) 81

$$\begin{array}{|c|c|c|c|c|c|c|c|} \hline 0 & 0 & 1 & 0 & 1 & 0 & 0 & 0 & 1 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 1 & 2 & 1 & 0 \\ \hline \end{array}$$

1 2 1

121₈

09) 89

$$\begin{array}{|c|c|c|c|c|c|c|c|} \hline 0 & 0 & 1 & 0 & 1 & 1 & 0 & 0 \\ \hline \end{array} \begin{array}{|c|c|c|c|} \hline 1 & 3 & 1 & 0 \\ \hline \end{array}$$

1 3 1

131₈