Input

Output

Memory + Storage

cpu (Processor)

0, 0, 200

0, 200, 200

Color

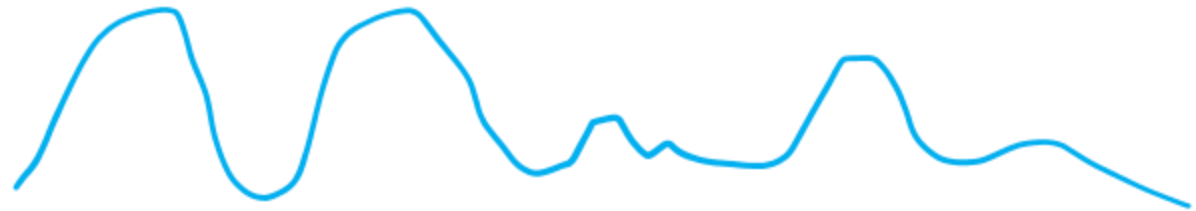
R, G, B

0-255

255, 0, 0

0, 0, 255

Sound



0 - 48
1 - 49

Hello

T - - - -

ASCII

A - 65
B - 66
:

a - 97
b - 98
:

65

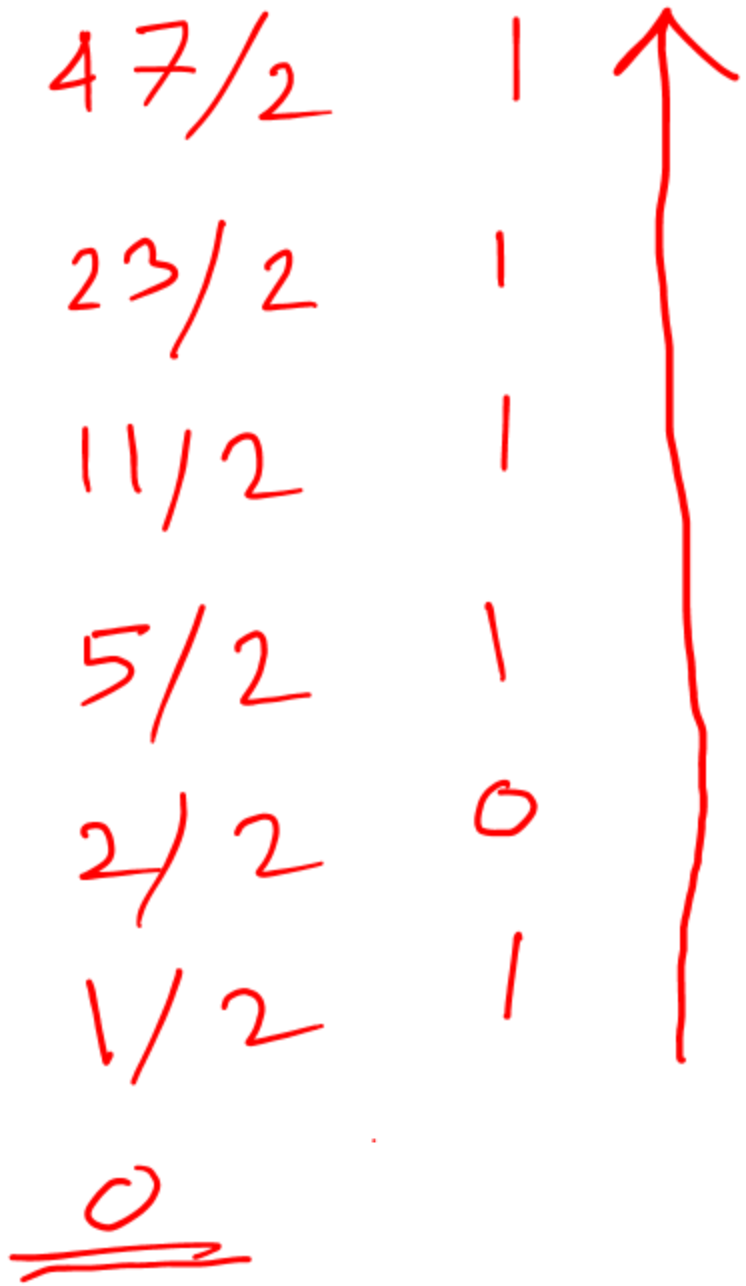
1000001

Binary

Base-10	Base-4	Base 2	Base 16	
0	0	0	0	E
1	1	1	1	F
2	2	10	2	10
3	3	11	3	
4	10	100	4	
5	11	101	5	
6	12	110	6	
7	13	111	7	
8	20	1000	8	
9	21	1001	9	
10	22	1010	A	
11	23	1011	B	
12	30	1100	C	
			D	

Decimal

47



$2^5=32$ $2^4=16$ $2^3=8$ $2^2=4$ $2^1=2$ $2^0=1$

1 0 1 1 1 1

$32+8+4+2+1$

$= 47$

10^3 10^2 10^1 10^0

1 5 0 3

$1000\times1+100\times5+10\times0+1\times3$

170/2 0

85/2 1

42/2 0

21/2 1

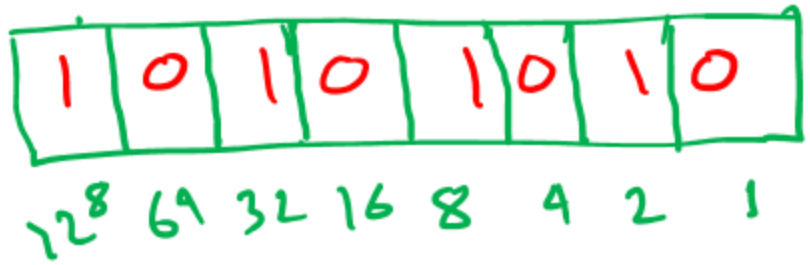
10/2 0

5/2 1

2/2 0

1/2 1

0

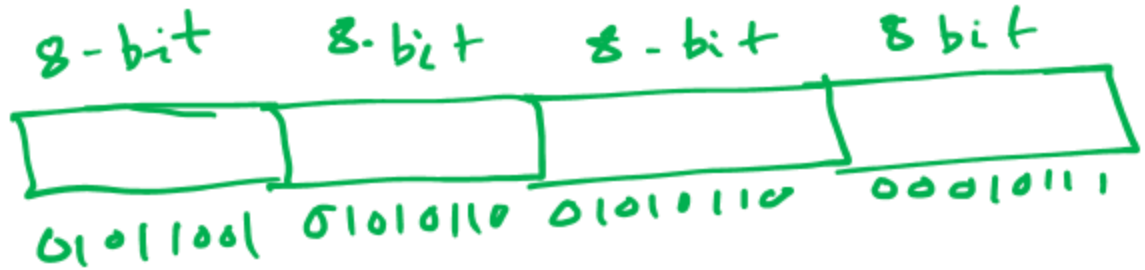


8 -bit = 1 Byte

128 + 32 + 8 + 2

= 170

$-2^{31} \rightarrow (2^{31}-1)$



int

4 Byte

= 32 Bit

int a = ?;

95

1 0 1 1 1 1 1

64 32 16 8 4 2 1

64 + 16 + 8 + 4 + 2 + 1 = 95

256

100000000

$(1\,1\,1\,1\,1\,1\,1\,1)_2 = 255$

$128 + 64 + 32 + 16 + 8 + 4 + 2 + 1$

$= (?)_{10}$

```
  1 0 0
  2 9 3
+ 1 4 5
-------
  4 3 8
```

```
  1 1
  1 0 1 0
  0 0 1 1
---------
  1 1 0 1
```

F	S	C_i	Res	C_o
0	0	0	0	0
0	1	0	1	0
1	0	0	1	0
1	1	0	0	1
0	0	1	1	0
0	1	1	0	1
1	0	1	0	1
1	1	1	1	1