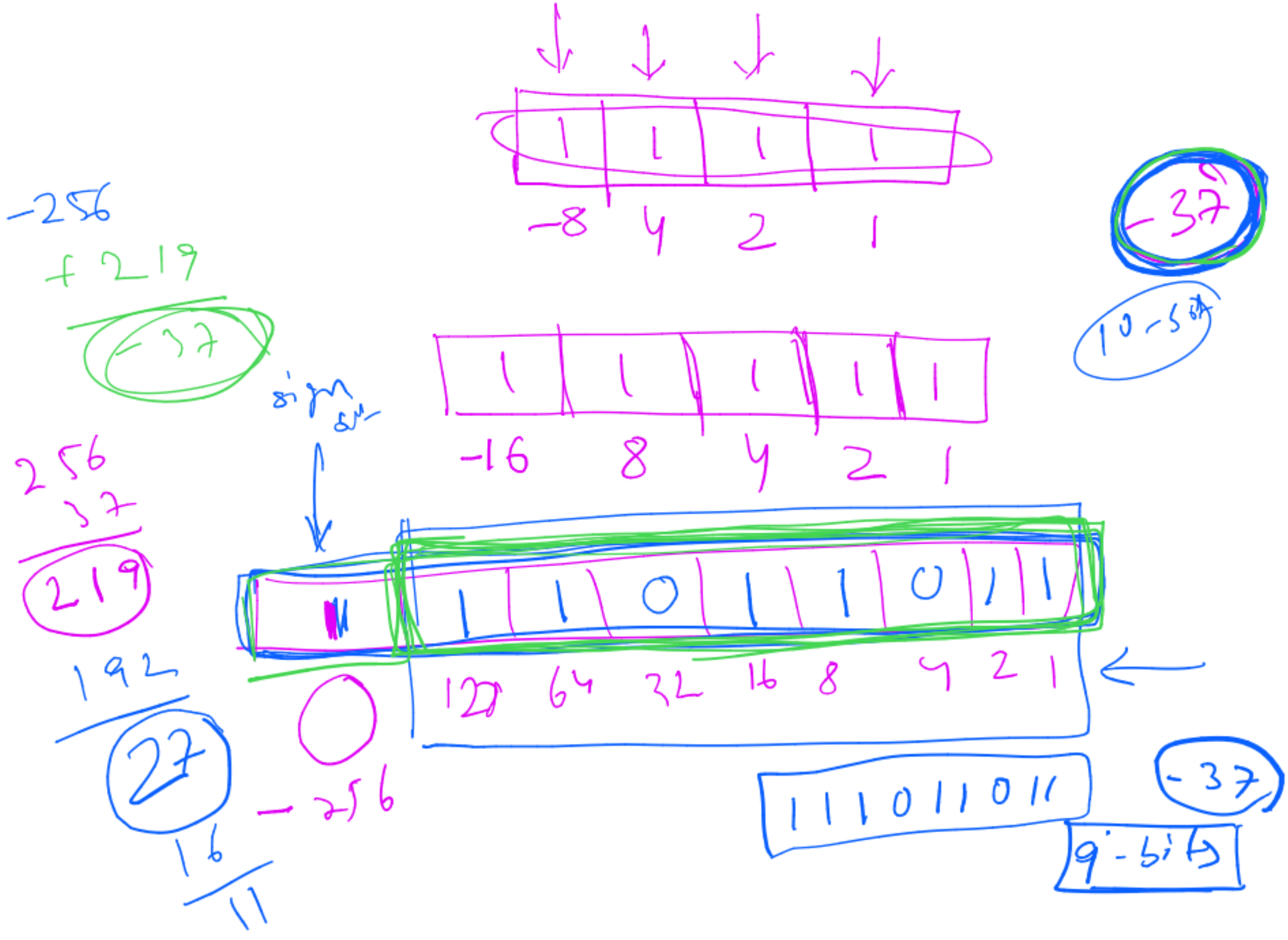
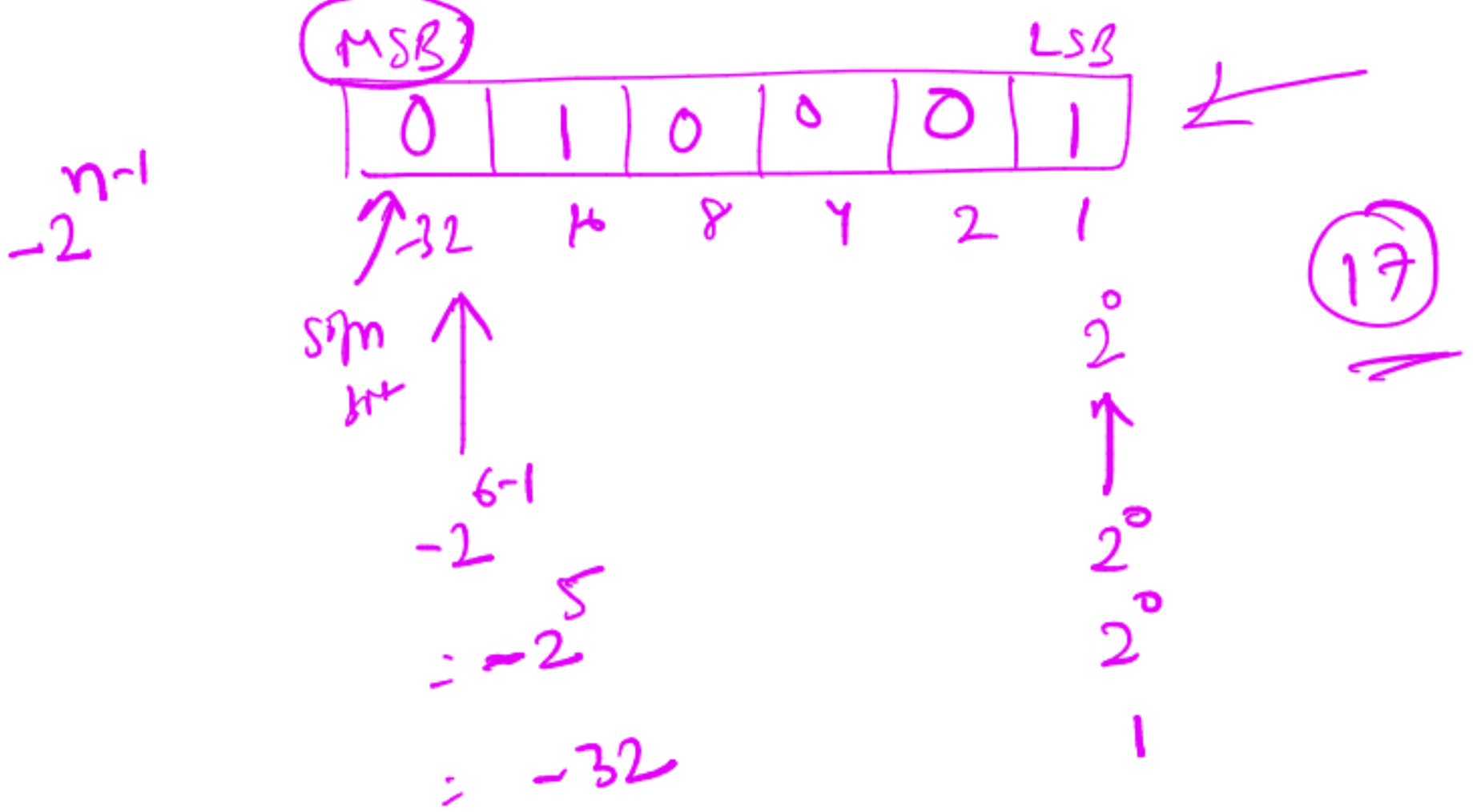


-8 4 2 1
-37
10-5 bit
-16 8 4 2 1
sign
-256
1 1 0 1 1 0 1 1
128 64 32 16 8 4 2 1
1 1 1 0 1 1 0 1 1
-37
9-bits
-256
+219
-37
256
37
219
192
27
16
11


MSB
LSB
0 1 0 0 0 1
-32 16 8 4 2 1
sign bit
-2^{n-1}
-2^{6-1}
-2^5
$= -32$
2^0
2^0
2^0
1

Augmented

short , long , signed and unsigned.

short int ≤ int (2 bytes)

long int ≥ 4 bytes.

int → 2 bytes.

4 bytes.

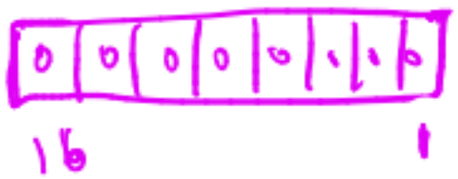
int
char
float
double

signed int

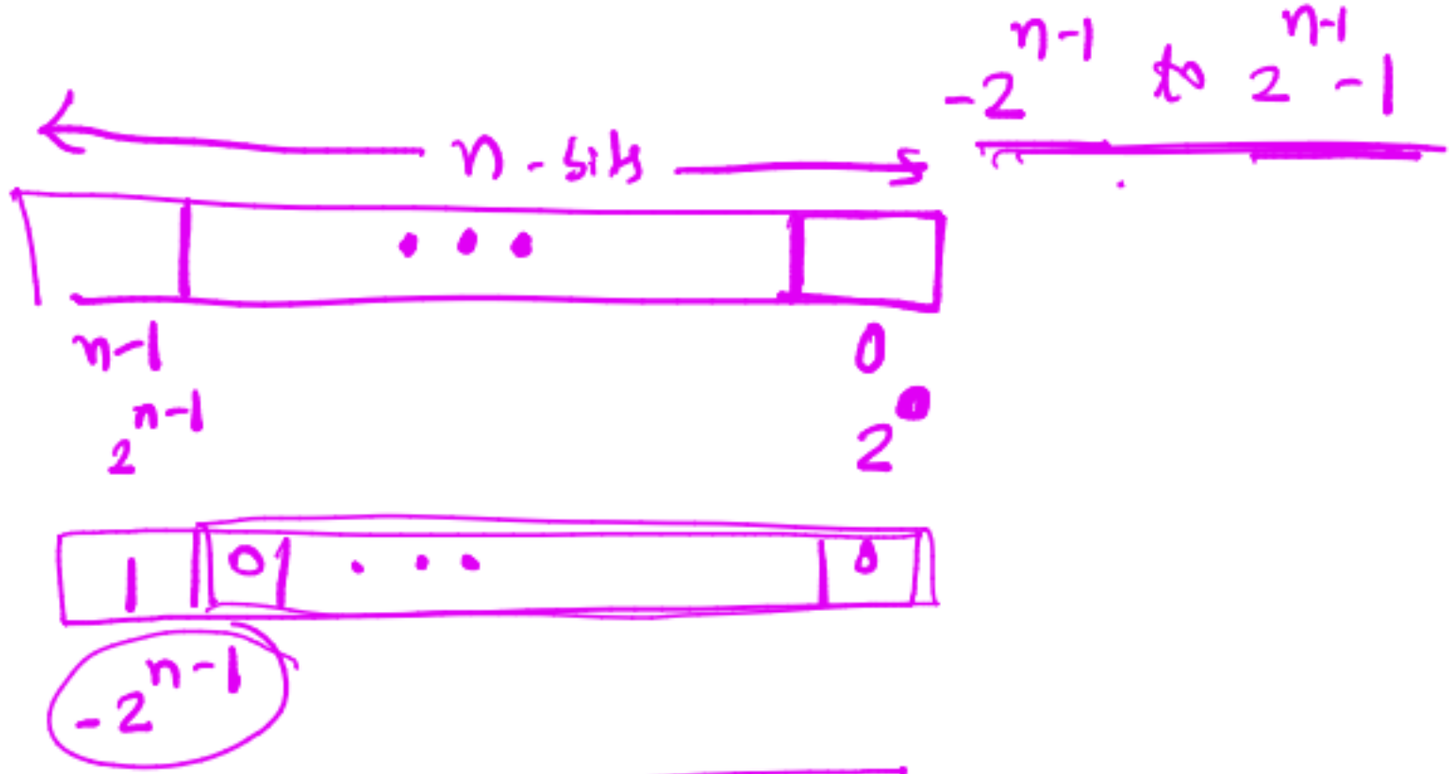
↳ +ve and -ve

+ve

(2B) Unsigned int — 0 to $2^{16}-1$ → 0 to 65535



(2B) Signed int — -2^{15} to $2^{15}-1$ → -32768 to 32767



(1B) char — 0 to 255 (unsigned)

-128 to 127 (signed)

8-bits

2^0 to 2^8-1

-2^7 to 2^7-1