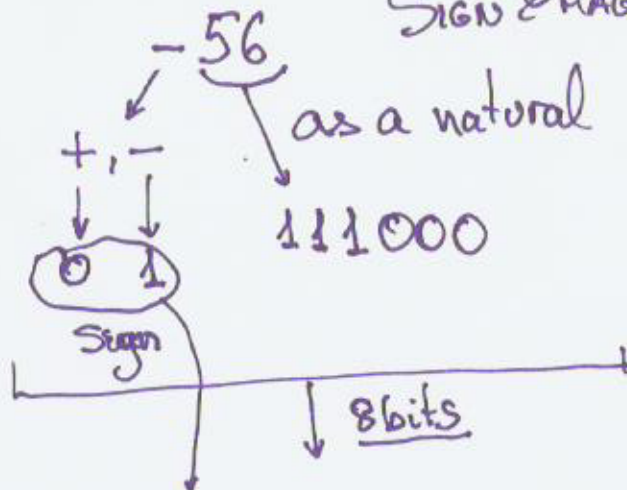
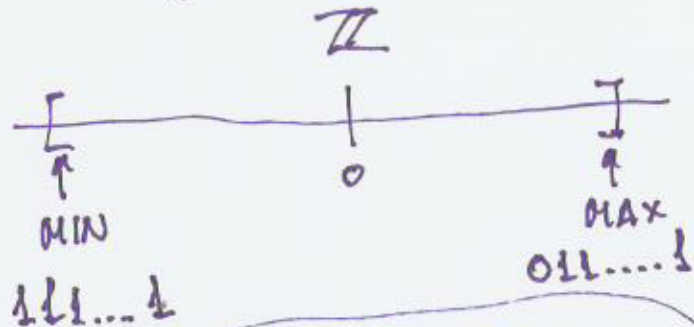


INTEGERS - IN BINARY

SIGN & MAGNITUDE



10111000
Sign & Magnitude



✓ Preferred

- Addition rule
- One code for zero!
- Sign bit

Integer → 2's Complement

-56 ① Convert Magnitude to binary
111000 → 8bits → 00111000

② Flip all the bits → 11000111

③ Add 1 → 11001000 → -56

12 → As a natural + 00001100 → +12

To Integer

① Flip the bit

② Add 1

③ Translate to Natural

11010100
00101011
+ 1
00101100
4+8+32 = -44

-44