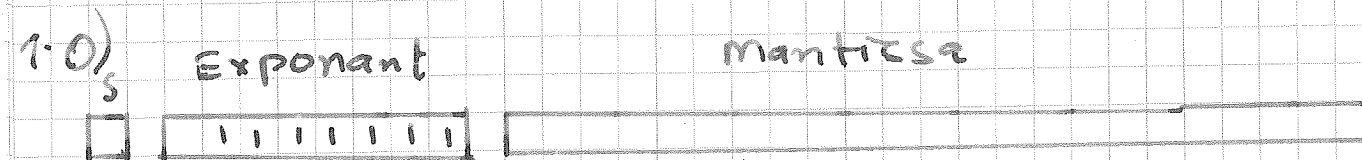


4) Packing of Number

a) Single precision

Converting 1.0 & 2.0 in IEEE-754
find a difference and convert that number
in decimal number that gives us the
number of number between to 1.0 &
2.0



2.0



number that, are in between 1.0 & 2.0 for
1.0 & 2.0, for IEEE-754 are, 8388607F

for 255.0 & 256.0

255.0



256.0



for 255.0 & 256.0 it's 65535.

b) double precision

double precision has 1st sing bit, next
11-bit exponent and next 52 bits are
mantissa

• for, between 1.0 & 2.0 the number is
 $2^{52} - 1$

• for, between ~~255.0~~ 255.0 & 256.0 the number is
 $2^{45} - 1$