Tute 7

COMP1521 24T1

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content

- 2's complement
- ieee 754
- more bitwise

2's complement

decoding

if msb is 0, decode as normal.
if msb is 1, $-1 \times (number + 1)$

endcoding

if positive, encode as normal
if negative, negate and add 1.

IEE-754

$$sign \times (1 + frac) \times 2^{exp-127}$$

sign is 1 if the most significant bit (m.s.b) is 0, or -1 if the m.s.b is 1

exp is determined by the 8 bits following the sign bit (as a value in the range 0..255)

frac is determined by the least significant 23 bits

https://www.h-schmidt.net/FloatConverter/IEEE754.html