Tute 7

COMP1521 25T3

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content

- 2's complement
- IEEE-754
- more bitwise

2's complement

if msb is 0, same as normal
if msb is 1, negate and add 1, then convert as normal

encoding is the same as decoding

IEEE-754

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

exp the 8 bits following the sign bit (as an unsigned 8 bit int 0..255)

frac the last 23 bits, as negative powers of 2. So 2^{-1}, 2^{-2}, ...

Good IEE-754 Calculator: pwww.h-schmidt.net/FloatConverter/IEEE754.html