Encoding II, Algorithms and Data Structures
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Exercise1: IEE 754 Number format

a) first bit: $1 \rightarrow$ negative

following 8 bits: $10000001 = 0111\,1111_2 + 10_2 \rightarrow$ Exponent is 10_2

other bits: $10100000000000000000000 \rightarrow$ Mantissa is 1.101_2

$\implies 11000000110100000000000000000000 = -1.101_2 \times 10_2^{10_2} = -1101.1_2 = -13.5_{10}$