

# CmpSci 201

## Homework 5

1. Convert the following decimal numbers to binary:

(a) 12.45

(b) 14.96875

(c) 127.2

2. Convert the following binary numbers to decimal:

(a) 1100.01110

(b) 101010.110001

(c) 11.11

Recall the 32-bit IEEE floating point representation:



3. Sketch out the bit-level representation of the following values:

(a) 101010.010101

(b)  $2^{-32}$

(c)  $16^{12}$

(d)  $-\infty$