

# LA Worksheet #11

1. 0.44361000

S = 0

E = 10001000

M = 01101100001

E = 136 - 127 = 9

M =  $2^{-2} + 2^{-3} + 2^{-5} + 2^{-6} + 2^{-11}$

$(1 \cdot 2^{-2} + 2^{-3} + 2^{-5} + 2^{-6} + 2^{-11}) \cdot 2^9$

$2^9 + 2^7 + 2^6 + 2^4 + 2^3 + 2^{-2}$

728.25

2. a) static, dynamic

b) CISC, RISC

c) page table

3 struct rior { size=24, align=4

int first;

float second;

char tLrd;

union Hello { size=10, align=4

struct Hl { size=8

int number;

float frac;

};

char name[10];

};

};

a) 400 - 43 c8 00 00

b) C533 - 43 53 33 33 00

4. a) len 0x4(-1rdi, %rsi), %rax

rdi = t0, rsi = t1, rax = t2

add t0, t0, t1

addi t2, t0, 4

b) mov %rdx, (-1rsp, %rsi, 8)

rsi = t0, rsp = sp, rdx = t1

add t2, t0, t0

add t2, t2, t2

add t2, t2, t2

add t2, t2, sp

sw t1, 0(t2)

c) add 0x8C(rdi, %rsi, 4), %rax

5) Add a reduction(+sum)

6) 6

7) X