

① float $f = -304.25$

`printf("%u", f)`

`printf("%d", f)`

What do the two print statements output?

② float $a = 44.75$

float $b = -231.25$

Convert to IEEE fp & show how " $a + b$ " would be done.

③ Assign values to x and y s.t.

i) $(x \& y)$ is TRUE and $(x \& y)$ is false

ii) $(x \parallel y)$ is false and $(x \parallel y)$ is true.

④ x is an int and we want to check if the 2 MSBs are equal to 1:

if (`..A..`) // TRUE if both MSBs are 1

else (`..B..`) // TRUE if at least one ~~MSB~~ of the two MSBs is 1.

What should we put at ~~A~~ A and B

⑤ We have an unsigned array a . $\{1, 1, 2, 3\}$

Unsigned int $*a$; \nearrow a points to

How many times will the following loop run?

`while (($*a++$) & 0x1) {`

loop

}

```

⑥  movq $0x8, %rdx.
    movq $0x20, %rbx.
    leaq 2(%rbx, %rbx, 8), %rbx.
    jmp L1
L2:
    subq %rdx, %rbx.
L1:
    cmpq $0, %rbx.
    jns L2.
    movq $0, %rax.
    ret.

```

Give the C equivalent of the above code.