CPEG 422/622 Spring 2020

Homework 5

Due April 10th at midnight (through Canvas)

1. Show the IEEE 754 single precision representation (32-bit) of -12.375_{10}. Show your steps to receive full credit.
2. Follow the steps given in lecture, show the process of adding the following numbers in floating point representation: -12.375_{10} and 1.75.
3. Assume a clock period of 10ns, Draw the waveforms (first 50ns) of signals A, B and C. Explain the difference between "B <= A" and "C <= A" in the code.

```
signal A: std_logic := 0;
signal B, C: std_logic;
gen: process(clock)
begin
    if(rising_edge(clock)) then
            A <= not A;
            B <= A;
    end if;
end process;
C <= A;
```