

NAME: _____

1. Suppose we are representing real numbers by the IEEE floating format with 5 exponent bits and 8 fraction bits (ignore the sign bit).

a. What is the floating-point representation of the decimal number $7\frac{1}{7}$ in this format?

Exponent_____ Fraction_____

b. What is the floating-point representation of the binary number 1.0011×2^{-2} in this format?

Exponent_____ Fraction_____

c. What is the floating-point representation of the binary number 1.0011×2^{-13} in this format?

Exponent_____ Fraction_____

2. Convert the DECIMAL value 11.1 into the IEEE floating format with a sign bit, a 5-bit exponent field, and a 10-bit fraction. Write your final 16-bit answer in Hexadecimal.