

CS344 Homework 3 – Floating Point

Assigned: 9/9/09

Points: 10

Purpose

The purpose of this lab is to gain a better understanding of how floating point numbers are represented using IEEE 754 standard.

Process

At the web page: <http://babbage.cs.qc.edu/IEEE-754/Decimal.html> is a form that will convert a decimal number to the IEEE standard. Use this page to complete the following table. Use the Rounded option using single precision. Show the exponent and significand in binary and in hexadecimal.

Floating Point Number	Sign Bit	Exponent	Significand
3.1415927	0	10000000 80	10010010000111111011011 490FDB
0			
0.1			
1.0			
10.0			
0.333333333			
-1.9999998807907104			
-0.1			
123456.789			