HW #2

CSc 137, Harvey

**Total (16 pts)**

1.6 What is the biggest positive FP number (in Decimal) that can be represented in 16-bit format using 1-bit sign, 4-bit biased exponent, and 11-bit fraction, where bias is 7? **(4 pts)**

1.8 Do the following assuming 16-bit FP numbers with 4-bit bias exponent, bias = 7, and 11-bit fraction: **(4 pts)**

1. What real number does an FP number with sign= 0, bias exponent =1 and fraction = 0 represent? (Answer in 4 decimal places)

2.4 Proof Demorgan’s Theorem by creating truth tables for and . Are the two truth tables identical? **(4 pts)**

* 1. **(4 pts)** Draw the circuit schematic for and then convert the schematic to NAND gates using the steps illustrated in the textbook.