EML3041 Computational Methods
Fall 2023
Week Two: August 28 – September 1
Session 01

Answer the free-response question on a fresh sheet of paper. ***Solve the problem as if you were submitting them for a test. Submit at the end of the class.***

1) A computer stores base-10 numbers in floating point format in 10-bit binary words. The first bit represents the sign of the number, the second bit represents the sign of the exponent, the following three bits represent the magnitude of the exponent, and the last five bits represent the magnitude of the mantissa. What is the base-10 number represented by 11 010 10011?

Answer: $-(0.3984375)_{10}$