Exercise 1: Decimal to IEEE 754 Conversion

Question: Convert the decimal number 12.375 to IEEE 754 floating-point format (32-bit).

Exercise 2: Negative Decimal to IEEE 754 Conversion

Question: Convert the decimal number -3.625 to IEEE 754 floating-point format (32-bit).

Exercise 3: Small Decimal to IEEE 754 Conversion

Question: Convert the decimal number 0.15625 to IEEE 754 floating-point format (32-bit).

Exercise 4: Large Decimal to IEEE 754 Conversion

Question: Convert the decimal number 256.75 to IEEE 754 floating-point format (32-bit).

Exercise 5: Analyzing a Given IEEE 754 Number

Question: Given the IEEE 754 (32-bit) floating-point number 0 10000100

10110000000000000000000, convert it back to a decimal number.

Exercise 6: Decimal to IEEE 754 Conversion

Question: Convert the decimal number -0.125 to IEEE 754 floating-point format (32-bit).

Exercise 7: Complex Decimal to IEEE 754 Conversion

Question: Convert the decimal number 123.456 to IEEE 754 floating-point format (32-bit).

Exercise 8: Analyzing a Given IEEE 754 Number

Question: Given the IEEE 754 (32-bit) floating-point number 1 10000010

Exercise 9: Decimal to IEEE 754 Conversion

Question: Convert the decimal number 9.75 to IEEE 754 floating-point format (32-bit).

Exercise 10: Analyzing a Given IEEE 754 Number

Question: Given the IEEE 754 (32-bit) floating-point number 0 01111110