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Assignment - 2 Numerical - Computing Asad Zaman P180034

Convert 100.875 to IEEE-754 Standard Format

Step - 1 Convert the number into binary

2 | 100	
2 | 50 - 0	
2 | 25 - 0	
2 | 12 - 1	
2 | 6 - 0	
2 | 3 - 0	
| 1 - 1	

100 ⇒ 1100100

.875 ⇒ 111

0.875 x2	1.75	1
0.75 x2	1.5	1
0.5 x2	1.0	1

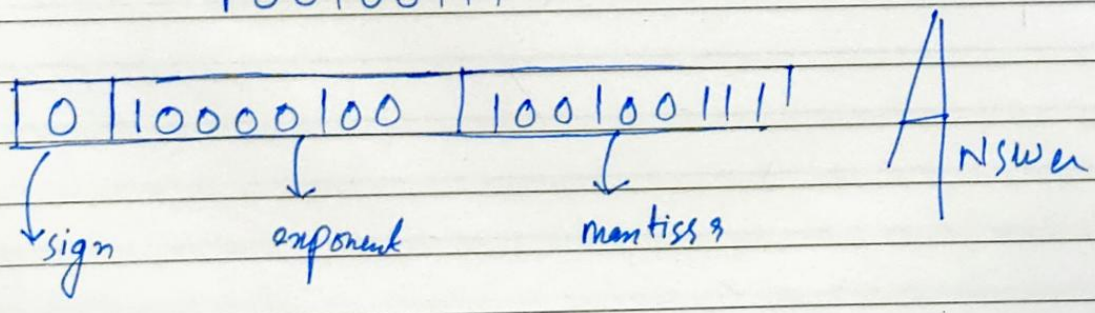
So 100.875 ⇒ 1100100.111

Step - 2 Exponent

5 + 127 = 132 ⇒ 10000100

Step - 3 Mantissa

10010011 1



Darsi Notes