LAB NASA format

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1) convert the number 37.25 and 0.2 into NASA format

$37.25_{10} \rightarrow 25.4_{16} \rightarrow 00100101.0100_2$

$\rightarrow 100101.0100_2$

16 | 37
16 | 2 r 5 ↑
0 r 2

$.25 \times 16 = 4$

Key Binary Nasa float: 0.100101010×2^6

0.1001010 | 10000000 | 00000000 | 00000110

4 A 8 0 0 0 0 6

$0.2_{10} \rightarrow 0.3_{16} \rightarrow 0.0011\,0011_2$

$.2 \times 16 = 3.2$ | 3
$.2 \times 16 = 3.2$

Key Binary NASA float: $0.11\,0011 \times 2^{-2}$

2's complement
00000010
11111101
+1
11111110

0.1 10011 | 01100110 | 01100110 | 11111110

6 6 6 6 6 6 F E

Final result:

Base 10	NASA Hex Format
37.25_{10}	4A 8000 06
0.2_{10}	66 66 66 FE