

Sony's Smaller

Convert 37.25 and 0.2 into NASA format

37.25:  $37_{10} = 2 \times 16^1 + 5 \times 16^0 = 25_{16}$   
 $0.25_{10} \times 16 = 4$  so  $0.25_{10} = 0.4_{16}$   
 $37.25_{10} = 25.4_{16} = 0010\ 0101.0100_2 = 0.10010101 \times 2^6$

0.100,1010,1000,0000,0000,0000,0000,0110

0.2:  $0.2_{10} \times 16 = 3.2$   
 $0.2_{10} \times 16 = 3.2$  so  $0.2_{10} = 0.3_{16}$

$0.3_{16} = 0.0011_2 = 0.1100_2 \times 2^{-2}$

$$\begin{array}{r} -2,00000010 \\ \underline{1111101+1} \\ 1111111 \end{array}$$

0.110,0110,0110,0110,0110,0110,1111,1111