

# Nasa Format Lab

$-37.25 \rightarrow 4A8000006$

$37.25_{10}$

$\frac{1}{2^6}$	$\frac{1}{2^5}$	$\frac{0}{2^4}$	$\frac{0}{2^3}$	$\frac{1}{2^2}$	$\frac{0}{2^1}$	$\frac{1}{2^0}$	
64	32	16	8	4	2	1	

  

							37
							-32
							5
							-4
							1

$$\begin{array}{lcl} 1_{10} & \rightarrow & 01_2 \\ 2 & \rightarrow & 10 \\ 3 & \rightarrow & 11 \\ 4 & \rightarrow & 100 \\ 5 & \rightarrow & 101 \\ 6 & \rightarrow & 110 \end{array}$$

$$\begin{array}{l} \cdot 100101 \cdot 01 \times 2^3 \\ 0 \cdot 10010101 \times 2^6 \end{array} \quad \begin{array}{l} \cdot 25 \times 2 = 0.5 \\ 5 \times 2 = 1.0 \\ 0 \times 2 = 0 \end{array}$$

$$\overbrace{0.10010101}^{\text{A}} \overbrace{10001000}^{\text{B}} \overbrace{00001000}^{\text{C}} \overbrace{00001010}^{\text{D}}$$

7 → 111

8 → 1060

$9 \rightarrow 1001$

A → 10 10

$\frac{0}{6} \cdot \frac{1}{6} \frac{1}{6} \frac{0}{6} \frac{1}{6} \frac{1}{6} \frac{0}{6} \mid \frac{0}{6} \frac{1}{6} \frac{1}{6} \frac{0}{6} \frac{1}{6} \frac{1}{6} \frac{0}{6} \mid \frac{0}{6} \frac{1}{6} \frac{1}{6} \frac{0}{6} \frac{1}{6} \frac{1}{6} \frac{0}{6} \mid \frac{1}{6} \frac{1}{6} \frac{1}{6} \frac{1}{6} \frac{1}{6} \frac{1}{6} \frac{0}{6}$

- 0.2  $\rightarrow$  666666FD

$$0.2 \times 2 = \underline{0.4}$$

$$4 \times 2 = 0.8$$

$$8 \times 2 = \underline{16}$$

$$6 \times 2 = 1.2$$

$$2 \times 2 = 0.4$$

repcats

0011<sub>2</sub>

$$00.11 \times 2^{-2}$$

00000010

negative switch 0 to 1s.

1111101

+1

11111110