

6a)

$$49.1875_{10} \xrightarrow{16} \underline{31}_{16}$$

$$.1875 \times 16 = \underline{3.0}$$

NASA

$$0.\underline{01100010011000000000} \times 10^6$$

$$\begin{array}{c|c|c|c} 0.1100010 & 01100000 & 000000000 & 00000110_2 \\ \hline 6 & 2 & 6 & 0 \end{array}$$

NASA<sub>16</sub> = 62600006<sub>16</sub>

NASA<sub>2</sub>

$$0.1100010 \mid 01100000 \mid 00000000 \mid 00000110_2$$

$$3.07421875 \rightarrow \underline{3} \quad \text{NASA}_2$$

$$.07421875 \times 16 = \underline{1.1875}$$

$$.1875 \times 16 = \underline{3}$$

$$0.1100010 \mid 01100000 \mid 00000000 \mid 00000110_2$$

NASA<sub>2</sub>

$$00.\underline{11000100110000000000} \times 10^2$$

$$\begin{array}{c|c|c|c} 0.1100010 & 01100000 & 000000000 & 00000010 \\ \hline 6 & 2 & 6 & 0 \end{array}$$

NASA<sub>16</sub> = 62600002<sub>16</sub>

NASA<sub>2</sub>

$$0.1100010 \mid 01100000 \mid 00000000 \mid 00000010_2$$

$$62) .2_{10} \xrightarrow{16} 0$$

$$.2 \times 16 = 3.2$$

$$.2 \times 16 = 3.2$$

$$.2 \times 16 = 3.2$$

$$10) \underbrace{0011}_6 \underbrace{0011}_6 \underbrace{0011}_6 \underbrace{0011}_6 \underbrace{0011}_6 \times 10^{-2}$$

$$\begin{array}{r} 00000010 \\ 11111101 \\ \hline 11111110 \end{array} \begin{array}{l} \text{pip} \\ -1 \end{array}$$

NASA<sub>2</sub>

$$0.1100110/01100110/01100110/1111110_2$$

$$666666 FE_{16} = .2_{10} \text{ NASA}$$

$$0.1100110/01100110/01100110/1111110_2$$

$$(66) -49.1875 \xrightarrow{16} 31_{16}$$

$$.1875 \times 16 \rightarrow 3$$

$$\begin{array}{r} 3 \quad 1 \quad 3 \\ 0011 \ 0001.0011 \end{array}$$

$$\begin{array}{r} 1100 \ 1110.1100 \\ +1 \end{array}$$

$$NASA_2 \quad \underline{1100 \ 1110.1101} \times 10^8$$

$$= 0.110 \ 0111 / 0110 \ 1000 / 0000 \ 0000 / 0000 \ 1000_2$$

$$-49.1875_{10}$$

$$NASA_{16} = 67680008_{16}$$

$$= 3.07421875 \xrightarrow{16} 3$$

$$.07421875 \times 16 \rightarrow 1.1875$$

$$.1875 \xrightarrow{16} 3$$

$$0011.0001 \ 0011$$

$$\underline{1100.1110 \ 1100}$$

+1

$$\underline{0.1100.1110 \ 1101} \times 10^4$$

~~NASA<sub>2</sub>~~

$$0.110 \ 0111 / 0110 \ 1000 / 0000 \ 0000 / 0000 \ 0100_2$$

$$\text{NASA}_{16} = 67680004 = -3.07421875$$

$$66) \quad -.2 \xrightarrow{16} 0$$

$$.2 \rightarrow 8.2$$

$$.2 \rightarrow 3.2$$

$$.2 \rightarrow 3.2$$

0000.0011 0011 0011 0011

1111 1100 1100 1100 1100

1111, 1100 1100 1100  $\overset{+1}{1101} \times 10^4$

NASA<sub>2</sub>

0.111 1110 / 0110 0110 / 0110 1000 / 0000 0100<sub>2</sub>

NASK<sub>16</sub>

$$7E666804_{16} = -.2$$



Float  $\rightarrow$  Deemed

6 9/9 9/99/02<sub>u</sub>

$$NAsA_7$$
[illegible]

3.4 C C C C

$$3.412121212_{10} = 69999902_{16}$$

699999903<sub>u</sub>

$0110\ 1001 / 1001\ 1001 / 1001\ 1001 / 0000\ 0011$   
 $0110\ 1001 / 1001\ 1001 / 1001\ 1001 / \underbrace{\hspace{1cm}}_{\times 10^7}$

6. 9999

$$699999905_{16} = 6.\overline{9}_{10}$$

6c) floor  $\rightarrow$  Decimal

96 66 67 | FF

1001 0110 | 0110 0110 | 0110 0110 | 1111 1111  
↓ ↓ ↓ ↓  
0010 0110 | 1001 1001 | 1001 1001 | 1100 1111  
0000 0001

~~2.6~~ 2.6 9999c<sub>16</sub>

2.6999 912