

$$AP1 - 219/10$$

$$\textcircled{2} a) (1001.001)_{10} = (1111101001.0000000001)_{2}$$

$$= (3E9.004...)_{16}$$

$0.001 \times 2 = .002 \rightarrow A-1=0$	$0.064 \times 2 = 0.128 \rightarrow A-7=0$	$512 - 2^9$
$0.002 \times 2 = .004 \rightarrow A-2=0$	$0.128 \times 2 = 0.256 \rightarrow A-8=0$	$256 - 2^8$
$0.004 \times 2 = .008 \rightarrow A-3=0$	$0.256 \times 2 = 0.512 \rightarrow A-9=0$	$128 - 2^7$
$0.008 \times 2 = .016 \rightarrow A-4=0$	$0.512 \times 2 = 1.024 \rightarrow A-10=1$	$64 - 2^6$
$0.016 \times 2 = .032 \rightarrow A-5=0$	$0.024 \times 2 = 0.048 \rightarrow A-11=0$	$32 - 2^5$
$0.032 \times 2 = .064 \rightarrow A-6=0$	$0.048 \times 2 = 0.096 \rightarrow A-12=0$	$8 - 2^3$
		$1 - 2^0$
		$1001.$

$$b) (123456.654321)_9 =$$

$$= (10210111220.201211100201)_3$$

$$c) 88888_9 = (163250)_8$$

88888_9	$\div 8$	11111	$\div 8$	1234	$\div 8$	137	$\div 8$	15	$\div 8$	61	$\div 8$	7
		21		33		47		6		1		0
		31		64		3		3		0		
		41		2								
		5										

$$d) (77665.543)_8 =$$

$$= (11111110110101.101100011)_2 = (7FB5.B18)_{16}$$

$$e) (F\Delta F\Delta.FEDE)_{16} = (33223322.33323132)_4$$

$$= (1111101011111010.1111111011011110)_2 =$$

$$= (175372.77557)_8$$

3) a)
$$\begin{array}{r} \text{FF EEDD} \cdot \text{CC BB} \text{ }_{16} \\ + \text{DD EE FF} \cdot \text{AA} \text{ }_{16} \\ \hline (1 \text{DDDD DD} \cdot 76 \text{ BB})_{16} \end{array}$$

c) 20000001.001₁₆
FEDCBA.FFE₁₆

$$(1012346.0022)_{16}$$

d)

$$\begin{array}{r} \textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10}\textcircled{10} \\ 1011111011.0111_2 \\ 1111101101.1110_2 \\ + 1110111011.1011_2 \\ \hline (101010100101.00010)_2 \end{array}$$

e)
$$\begin{array}{r} 1000011101.0001_2 \\ 111110111.11011_2 \\ \hline (100101.00111)_2 \end{array}$$