

AP1 - 2019/1^o

① $\frac{1}{2} \cdot 10^{-10}$

(2) a) $(1001.001)_10 = (1111101001.000000000100)_2$

$0.001 \times 2 = .002 \rightarrow A-1=0$ $= (3E9.004...)_{16}$
 $0.002 \times 2 = .004 \rightarrow A-2=0$ $0.064 \times 2 = 0.128 \rightarrow A-3=0$
 $0.004 \times 2 = .008 \rightarrow A-4=0$ $0.128 \times 2 = 0.256 \rightarrow A-5=0$
 $0.008 \times 2 = .016 \rightarrow A-6=0$ $0.256 \times 2 = 0.512 \rightarrow A-7=0$
 $0.016 \times 2 = .032 \rightarrow A-8=0$ $0.512 \times 2 = 1.024 \rightarrow A-9=1$
 $0.032 \times 2 = .064 \rightarrow A-10=1$ $0.024 \times 2 = 0.048 \rightarrow A-11=0$
 $0.064 \times 2 = 0.128 \rightarrow A-12=0$ $0.048 \times 2 = 0.096 \rightarrow A-13=0$

$\begin{array}{r} 512 - 2^9 \\ 256 - 2^8 \\ 128 - 2^7 \\ 64 - 2^6 \\ 32 - 2^5 \\ 8 - 2^3 \\ 1 - 2^0 \\ \hline 1001. \end{array}$

b) $(123456.654321)_9 =$
 $= (10210111220.201211100201)_3$

c) $88888_9 \mid 8$ $= (163250)_8$

e

21	1234	8	
31	33	137	8
41	64	47	15
5	2	3	6
<u>10</u>			

d) $(77665.543)_8 =$
 $= (11111110110101.10110001,1)_2 = (7FB5.B18)_{16}$

e) $(FADF.FEDE)_{16} = (33223322,33323132)_4$
 $= (111110101111010.1111111011011110)_2 =$
 $= (175372.77557)_8$

(2)

(3) a)
$$\begin{array}{r} \text{11111111} \\ \text{FFEEEDD.CCBB}_{16} \\ + \text{DDEEFF.AA}_{16} \\ \hline (\text{1DDDDDD.76 BB})_{16} \end{array}$$

b)
$$\begin{array}{r} 80001010.0001_9 \\ - 77665544.8877_9 \\ \hline (\text{1224354.0013})_9 \end{array}$$

c)
$$\begin{array}{r} 2000001.001_16 \\ - \text{FEDCBA.FFEE}_{16} \\ \hline (\text{1012346.0022})_{16} \end{array}$$

d)
$$\begin{array}{r} 101111011.0111_2 \\ + 11110111011.1011_2 \\ + 1110111011.1011_2 \\ \hline (\text{101010100101.00010})_2 \end{array}$$

e)
$$\begin{array}{r} 1000011101.0001_2 \\ - 11110111.11011_2 \\ \hline (\text{100101.00111})_2 \end{array}$$