② **ⓐ**

$(111101110\overset{0}{1}.111)_2 = (?)_{10} = (?)_{16} = (3DD.E)_{16} =$

Ⓘ $512+256+128+64+16+13 = 989$

Ⓕ $0.5+0.25+0.125 = 0.875$

$= (989.875)_{10}$

ⓑ

$\left(\begin{array}{c}1\ 2222\ 00\ 222\ 1\ 200202.0\ 11\ 2\ 20\ 2\ 10\ 21\\ 1\ \ 8\ \ 8\ \ 0\ \ 8\ \ 7\ \ 6\ \ 2\ \ 2\ \ 1\ \ 5\ \ 6\ \ 7\ \ 2\ \ 3\end{array}\right)^3_9 =$

ⓒ

$6604537\,\underline{|8}$
00045
$\ \ \ 13$
$\ \ \ \ 57$
$\ \ \ \ \ \underset{\smile}{5}$

$1100617\,\underline{|6}$
$\ \ \ 30$
$\ \ 006\,\underset{\smile}{17}$
$\ \ \ \ \ \underset{\smile}{3}$

$140102\,\underline{|6}$
$\ \ 0010$
$\ \ \ \ 22$
$\ \ \ \ \underset{\smile}{0}$

$20013\,\underline{|6}$
$\ \ 40$
$\ \ 21$
$\ \ 53\,\underset{\smile}{}$

$2527\,\underline{|6}$
$\ \ 32$
$\ \ 27$
$\ \ \ \underset{\smile}{5}$

$343\,\underline{|6}$
43
$\ 45\,\underline{|6}$
$\ \ 5\,\underset{\smile}{}$
$\ \underset{\smile}{1}$
$\ \ \ 6\,\underline{|6}$
$\ \ \ 0\,\underset{\smile}{1}$
$\ \ \ \ \underset{\smile}{0}$

$= (101551035)_6$

d) $(7506645.1057)_8 =$

$= (111\ 101\ 000\ 110\ 110\ 100\ 101.001\ 000\ 101\ 111)_2$

$= (1\ 3\ 2\ 2\ 0\ 3\ 1\ 2\ 2\ 1\ 1.0\ 2\ 0\ 2\ 3\ 3)_4 =$

$= (1\ E\ 8\ D\ A\ 5.2\ 2\ F)_{16}$

e) $(DD94B.8CA)_{16} = (3131211023.203022)_4 =$

$= (1101\ 1101\ 1001\ 0100\ 1011.1000\ 1100\ 1010)_2$

$= (3\ 3\ 5\ 4\ 5\ 1\ 3.4\ 3\ 1\ 2)_8$

③ a)
```
          1 1 1 1 1 1 1 1 1 1
   FEDDBEC.B9E₁₆
 + EFFDB1C.CBEA₁₆
 ─────────────────
  (1EEDB709.85CA)₁₆
```

b)
```
   70000210.0301₈
 -  6765747.75477₈
 ─────────────────
 (00121040.05311)₈
```

c)
```
   1010200.073₁₆
 -  FFC5AD.9CBE₁₆
 ─────────────────
    (13C52.6A72)₁₆
```

d)
```
    10 1 1 1 10 10 1 1 1        1 1
    1 1 1 1 0 0 1 1 0 1 . 1 0 0 1₂
    1 1 1 0 0 1 1 1 0 1 . 1 0 1 0 1
  + 1 1 0 1 1 1 1 0 1 0 . 1 0 1 1 1
 ──────────────────────────────────
 (1 0 1 0 1 1 1 0 0 1 0 1 . 1 1 1 1)₂
```

e)
```
   1010001001.0001₂
 -  111010111.10111₂
 ─────────────────
   (10110001.01011)₂
```