

학과	미디어	학번	201821049	이름	이서영
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1) 89 = 0101 1001

-89 = 1010 0111

45 = 0010 1101

-45 = 1101 0011

1010, 0111

+ 1101, 0011

[0111, 1010]

오버플로우 발생

(2) 0101, 1001

0010, 1101

[1000, 0110]

오버플로우 발생

2. (1)

623 = 0110, 0010, 0011

599 = 0101, 1001, 1001

+ 0110

1011, 1011, 1100

0110, 0110, 0110

100100010, 0010

[1 2 2 2]

(2) 555 = 0101, 1011, 0101

274 = 0010, 0111, 0100

0111, 1010, 1001

00

1100

+ 1 0110

1000, 0010, 1001

[8 2 9]

3.

77 = 0111, 0111 = 0111 119

(1) 119 (2) + 119

4[13E9] : 0011, 1110, 1001, 0001

2793 : 0010, 1111, 1001, 0011

2793 :

3 2 9 1

14 = E.
15 = F.

- 2793

[E F E]

-2
13-15.

(2) 8A1B

- 6F2

[2 2 9]

A:10 D:13
B:11 E:14
C:12 F:15

5.

0(10)

0(102)

102

$$-\frac{1}{32} = -0.00001_{(2)} = -0.1 \times 2^{-4}$$

$$= -10 \times 2^{-5}$$

부호: 1

2의: ~~127 = 123~~ = ...

$$-5 + 127 = 122 = 0111010$$

가수: 0

$$1011101, 0000, 0000, 0000, 0000$$

$$0000, 0000 = 0 \times BD000000$$

6. (1)

$$0.1110, 01 \times 2^{-5}$$

$$+ 10.0111, \times 2^{-5}$$

$$11.0101, 01 \times 2^{-5}$$

$$= 0.1101, 0101 \times 2^{-3}$$

(2) 0.1001×2^8

$$\times 1011.0 \times 2^8$$

~~$$1011.1001 \times 2^8$$~~
~~$$01011, 1001 \times 2^{12}$$~~

$$\begin{array}{r} 1001 \\ \times 1011 \\ \hline 1001 \\ 1001 \\ 1001 \\ 1001 \\ \hline 0110,0011 \end{array}$$

$$2^8 \times 2^{12} = 2^{20}$$

$$0.1110, 0011 \times 2^{20}$$

$$= 0.1100, 011 \times 2^{19}$$

7.

R1 1010, 0110

R2 1110, 0011

$$\begin{array}{r} 0100, 0101 \\ \hline R1 \text{은 } 0100, 0101 \text{ 이다.} \end{array}$$

8.