

Homework 1 Solution

Number Conversion

- (1) 43981
170
438
- (2) $(10000)_{16}$ or 0x10000
 $(7FFF)_{16}$ or 0x7FFF
 $(B6)_{16}$ or 0xB6
- (3) 11 1111 1111 1111
1011 1110 1110 1111
1 0010 1110

Operations

- (1) Hexadecimal, decimal or binary representation are all accepted
(a) 0x81 (b) 1 (c) 0xEF (d) 1 (e) 0x6E (f) 0x7E

(2)

X	$X \ll 4$	$X \gg 3$ (Logical)	$X \gg 3$ (Arithmetic)
0xC3	0x30	0x18	0xF8
0x0F	0xF0	0x01	0x01
0xAB	0xB0	0x15	0xF5
0x5E	0xE0	0x0B	0x0B

(3)

- A. $\neg(\sim x)$
B. $\neg x$
C. $\neg(\sim x \ \& \ 0xFF)$
D. $\neg(x \ \& \ 0xFF)$

- (4) $(x \ \& \ 0xFFFF) \mid (y \ \& \ \sim 0xFFFF)$