

Shifting

Suppose we are in eight-bit world. What is the result of the following:

(1101 1110) << 3

(1101 1110) >> 3 (arithmetic)

(1101 1110) >> 3 (logical)

(0010 0111) << 3

(0010 0111) >> 3 (arithmetic)

(0010 0111) >> 3 (logical)

Some bitwise operations

Evaluate the following:

1010 | 0101

1010 || 0101

1010 & 0101

1010 && 0101

~1001

!1001

Masking (credit to CSAPP)

Let x be an integer (type `int`). Write C expressions in terms of x . Do not use constants greater than `0xFF`

- A. The least significant byte of x , with all other bits set to 0

- B. All but the least significant byte of x complemented, with the least significant byte left unchanged.

- C. The least significant byte set to all ones, and all other bytes of x left unchanged

Does anything change if x is unsigned?