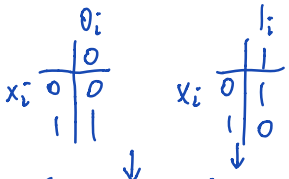
Practice Problem 2.12 (solution page 182)

Write C expressions, in terms of variable **x**, for the following values. Your code should work for any word size $w \geq 8$. For reference, we show the result of evaluating the expressions for **x** = **0x87654321**, with $w = 32$.

A. The least significant byte of **x**, with all other bits set to 0. [**0x00000021**]

B. All but the least significant byte of **x** complemented, with the least significant byte left unchanged. [**0x789ABC21**]

C. The least significant byte set to all ones, and all other bytes of **x** left unchanged. [**0x876543FF**]



A. x & 0xFF

B. (x & 0xFF) | (~x & ~0xFF) = x ^ ~0xFF (x^0=x, x^1=~x)

C. x | 0xFF