CSCI 2330 – Binary Exercises
(assume 8-bit data types unless otherwise noted)

1. How many values can be represented using a 9-bit binary number?

2. Write decimal value 230 in (a) binary, and (b) hex.

3. Write binary value 0b10001111 in (a) decimal, and (b) hex.

4. Write hex value 0x55 in (a) decimal, and (b) binary.

5. Compute 0x69 | 0x55 (express your answer in hex).

6. Compute 0x69 || 0x55 (express your answer in hex).

7. Compute 5 << 1, 5 << 2, and 5 << 3 (express your answers in decimal). What do you notice?

8. C does not provide a logical XOR operator (which you might expect to be ^^). How could you compute the logical XOR of two ints **x** and **y** using existing logical operators (==, !=, ||, &&, and !)?