Design a device which will calculate the 4 bit two’s compliment of an unsigned 3 bit input. First, write the truth table (your inputs are the three bits x2, x1, x0, and the outputs are fourt bits y3, y2, y0) Then, use K-maps to find the minimal sums of each of the outputs.

2.) Design a device which will take in a 3-bit two’s compliment number and output the square of that number(This output should also be in 2s compliment format.) As in problem 11, fill in the truth table and use k-maps to calculate the minimal sums for all of the output bits.