Write an LC-3 machine program that determines the maximum and minimum values of an array. Your program should start in memory location x3000; the max and min values should be stored in memory locations x3050 and x3051, respectively. Test your program by executing it using the LC-3 simulator.

The number of elements in the array should be placed in memory at location x3060, and the array elements themselves should start at x3061. Your program should be written in binary (i.e., 1’s and 0’s). Each instruction line should contain a comment with the mnemonic opcode and operands for the instruction.

For this assignment, you should turn in a printout of your program.