ECE 109 – Sections 602, 603, and 604
Homework 3

Problem 1
This problem will use the following pointless C procedure:

```
int homey3(int x, int y) {
      int s ;
      if (x>y) {
            m = x ;
      } else {
            m = y ;
      }
      int s = 3 ;
      while (s<m) {
            s = s + y ;
      }
      return s ;
}
```

Problem 1a:
    Write a C prototype for the `homey3` function.

Problem 1b:
    Write a C statement that calls the `homey3` function with the values 5 and 6 and assigns the returned value to an integer value `p`.

Problem 1c:
    Write a symbol table for the **homey3** function using the textbook's convention for LC/3 activation records.

Problem 1d:
    Translate the `homey3` function into LC/3 code. You'll need to write the one your own paper.

Problem 2:
    The following page is problem 3 of homework 2 for section 001 of ECE 109. Do it!

3. The table on the right lists a set of C variables and their values. What is the value of each expression given below? (Make sure to write the value as the correct type. For example, write "2.0" instead of "2" if the expression results in a floating-point value.) Use the table of operators in the textbook, or on the C reference sheet, to determine the precedence and associativity of operators.

Variable	Value
a	11
bravo	7
cost	4.7
d	'Z'
eNum	5
f	2e-9

Expression	*Value*
`a + bravo * 3`	_____
`a / 3 + eNum`	_____
`eNum * cost`	_____
`eNum + bravo << 2`	_____
`f *= 1000.0 + cost`	_____
`cost / 3 * 2`	_____
`d & 0x20`	_____
`a	0xf`	_____
`a & 1 + bravo & 3`	_____
`a / eNum / 3`	_____
`cost > 3.0`	_____
`(a | 0x3) && (eNum >> 3)`	_____
`d + bravo`	_____
`bravo << eNum – 2`	_____
`a++ + --bravo % 8`	_____
`(a && eNum) == !0`	_____