All functions should be written in the same file and called in the main function.

1) Write a function that takes in no input variables and has not return value. In this function you will create a for loop that starts at 2, end when the iterator is less than or equal to 20, and increases the iterator by 3. The body of the loop will print out the iterator.

2) Create a function that has a single input variable that is an integer and returns a float. The body of the function will then call the Random function from class. It will take the number returned from the Random function and mod it by the input variable. The result from the mod will then be divided by 100 and stored into a floating-point variable. That variable is then returned.

3) Create a function that takes in 2 input variables that are both integers and has no return value. The body of the function will find the larger of the 2 input variables, and print it out.

4) Create a function that has three input variables, all integers, and no return value. The body of the function will use the input variables to create a while loop. The first input variable will be the starting value of the iterator. The second input variable will be used in the comparator to see if the iterator is greater then or equal to it. And finally the third input variable will be the amount the iterator will be increased by.

5) Write a function that takes in 2 integers as input variables and returns a float. The body of the function will first cast both input variables into floating-point variables. Then it will divide the first floating-point variable by the second floating-point variable and return the result.

6) Write a function that takes in no input variables and does not return anything. The body of this function will have 2 embedded for loops that run for a total of 45 iterations. In the body of the inner most loop, print out the both iterators.

7) Write a function that takes in three input variables that are all of type floating-point. In the body of the function you will find the largest of all three input variables and print it.

8) Create a function that takes in 2 floating point numbers as input variables and returns a floating-point value. In the function you will find the absolute value of the difference between the two numbers. Do not use the abs function from the math.h library for this.

9) Write a function that takes in a single input variable that is an in. The body of the function will test to see if the input variable is equal to 0, even or odd. If the input variable is equal to 0, then print "equal to 0". If the input variable is even, then print out "input is even". If the input variable is odd, then print out "input is even". Only one statement should be printed out when this function is called.

10) Write a function that has no input variables and no return value. In the body of the function create a for loop whose iterator starts at 0 and continues to run while the iterator is less than 30. The iterator is incremented by 1 each time. In the body of the for loop test to see if the iterator can be evenly modded by 3. If it can be evenly modded by 3, then execute the continue command. After testing the iterator, print it out..

11) Write a function that has no input variables and no return value. In the body of the function create a while loop whose iterator starts at 10 and stops running when the iterator is equal to 0. The iterator is decremented by 1 in the while loop. In the body of the while loop, if the iterator is ever equal to 5, then execute the break command.

12) Write a function that takes in a single input variable that is a float and returns a value that is a float. The body of the function will first call the function from question 5 with values of 5 and 8. Next take the value returned from that function and add 5.5 to it. Finally return the value of the addition.

13) Write a function that has no input variables and does not return anything. In the function you will call the Random function from class and turn it into a number between 0 and 100. Then you will create a for loop that starts at 0 and continues to run until it less than or equal to the random number between 0 and 100. The iterator increases by 1 for every iteration of the for loop. Inside the for loop you will sum up all the even numbers. Once the for loop has completed print out the summed numbers.

14) Create a function that takes in 2 pointers to integers as input variables and returns an int. In the function you are to de-reference the pointers and add them together. The result of this addition is returned.

15) Create a structure that has 2 floating point variables and an integer variable in it. Next create a function that has no input variables and returns a pointer of the structure you created. Inside the function you will malloc a structure and fill the variables with random values. Then return the malloc'ed structure.

16) Create a function that takes in a pointer to the structure type you created in questions 15 and has no return value. The body of the function free's the structure.

17) Create a function that takes in a single input variable that is an integer and returns a pointer of the structure type you created in function 15. Inside this function you will malloc an array with the size set to the integer input variable. They type of this array will be of the structure you created in question 15. You will then fill the values of the array with random numbers.

18) Create a function that takes in a pointer of the structure type you created in question 15 and has no return value. Inside the function you will print out all the variables in the structure pointer.

19) In the main function you need to call functions 15 and 17. Then, while still in the main function, you need to print out all the values from both of the returned pointers using the function from question 18. Then call function 16 to free the individual structure and then free the memory from question 17 in the main function.