src/functions.h

```cpp
 1  // Title:   functions.h
 2  // Desc:    Header file for functions.cpp
 3  // Name:    An Tran
 4
 5  //TODO — Add the appopriate file header here
 6
 7  #ifndef FUNCTIONS_H
 8  #define FUNCTIONS_H
 9
10  //TODO — Add header comments for each function using the template ad guidelines shown
    to you in class
11
12  // int getInput()
13  // desc:        gets an input by the user through the console and returns it
14  // receives:  nothing
15  // returns:    int value
16  int getInput();
17
18  // float calculateLakeArea()
19  // desc:        calculates the area of the lake using Simpson's Rule.
20  //              math variables include:
21  // receives:  nothing
22  // returns:    float value of calculated lake area
23  float calculateLakeArea();
24
25  // float calculateLakeVolume(float)
26  // desc:        Calculates the volume of the lake by multiplying the value of areaOfLake
    parameter by the average lake depth of 20 feet.
27  //              math variables include:
28  // receives:  One float
29  // returns:    Float value of calculated lake volume
30  float calculateLakeVolume(float areaOfLake);
31
32  // int calculateFishStock(float)
33  // desc:        Calculates amount of fish stock by dividing the value of volumeOfLake
    parameter by 1000 cubic feet. Because we plan to
34  //              stock 1 fish per 1000 cubic feet.
35  // note:        Despite possibily calculating a float, since the function type is int,
    the return will drop any number following the decimal. The logical
36  //              of this interaction still represents the floor division we would want in
    this type of problem. You can't have a part of a fish.
37  // receives:  One float
38  // returns:    Int value of calculated fish stock
39  int calculateFishStock(float volumeOfLake);
40
41  // float calculateMaxLicenses(int)
42  // desc:        Calculates max amount of lincenses. First, calculates 75% of value of
    fishStock parameter. The 75% will be stored as availableFishStock
43  //              and be used to represent as it's name states. If average catch is 20
    fish per license, then availableFishStock can be dividied by 20
44  //              to find the max amount of lincenses.
45  // note:        Despite possibily calculating a float, since the function type is int,
    the return will drop any number following the decimal. The logical
46  //              of this interaction still represents the floor division we would want in
    this type of problem. We are finding possible max
```

```
47  // receives:  One int
48  // returns:   Int value of calculated max licenses
49  int calculateMaxLicenses(int fishStock);
50
51  #endif
```