Week 4: Exam Review

Today, we'll be reviewing topics in the exam. The most difficult parts on these tests tend to be dealing with unusual operations that you'd never expect to perform, stepping through your code, and writing code to solve a problem without a compiler. So, here are some exercises that will give you some more practice

Task 1: Strange Operations

Open up the file unusual.cpp. Without compiling and running it, see if you can determine the correct output.

Task 2: Floating Point

Convert the following numbers to their floating-point (32-bit precision) representation (or convert to 64-precision if that is what your project had you do).

6.25
-13.625

Task 3: Whiteboard Coding

Write a function that will count the number of occurrences of a number in a vector. You should return two vectors (i.e. a vector of vectors). The first vector should be a list of elements that occur in the input (no duplicates), and the second vector should be the counts of those elements. For example, if the input was

[1, 2, 3, 4, 5, 1, 2, 3, 4, 5, 6]

You should a vector with the following two vectors:

[1, 2, 3, 4, 5, 6]
[2, 2, 2, 2, 2, 1]

```
vector<vector<int>> countOccurrences( vector<int> input )
{
     //Complete this
}
```

Please write this out on the whiteboard. This will be similar to your conditions on the exam. You may use additional helper functions and reasonable #includes.