The Client or Test Program

Open your CodeSpace IDE, (or, you can do this in Replit if you like), and
create a folder. Add a file named `client.cpp`. Add the usual `#include` statements and an
empty `main()`. In the `main()` function you need to:

1. **Call** each of your functions with some known input.

2. Compare the value returned (this is called the **actual value**), with the value
   that **should have been returned** (this is called the **expected value**).

3. Print a message indicating whether you got it right or wrong.

Here's some code, which calls each function, compares it to the expected value, and then
uses the **conditional operator** to print **PASS** or **FAIL**. Note that each expression needs
to be enclosed in parentheses:

```
1   cout << "Testing digits library" << endl;
2   cout << ((firstDigit(1729) == 1) ? "PASS" : "FAIL") << endl;
3   cout << ((lastDigit(1729) == 9) ? "PASS" : "FAIL") << endl;
4   cout << ((numDigits(1729) == 4) ? "PASS" : "FAIL") << endl;
```

When you compile with `make client`, you'll get the error message:

```
client.cpp:7:14: error: 'firstDigit' was not declared in this
scope
```

An **undeclared** error message is a **compiler** syntax error whic means you are missing a
prototype or you are calling a function incorrectly.

Basically, the compiler is saying "I don't know what the word **firstDigit** means. It's up to
us to tell it what that means. Which leads us to the interface file.