Program Arguments

```cpp
#include <iostream>

using namespace std;

int main(int argc, char* argv[]) {
    cout << argv[1] << endl;
    cout << argv[0] << endl;

    return 0;
}
```

Call

```
./test 1
```

What's the output?

IO

File input.txt

```
xm 3.14 zm\n
jw\n
```

main.cpp

```cpp
#include <iostream>

using namespace std;

int main() {
    string str1, str2, str3;
    double num;
    cin >> str1 >> num >> str2 >> str3;
    cout << str1 << num << str2 << str3;
    return 0;
}
```

What's the output if we run `./main < input.txt`?

Functional Pointer

Define a functional pointer which can point to these four functions

```
double add(double a, double b);
double sub(double c, double d);
double multiply(double a, double b);
double divide(double num, double denom);
```

Testing

Write normal, and boundary test cases for

```
bool tree_hasMonotonicPath(tree_t tree);
// EFFECTS: Returns true if and only if "tree" has at
least one
//          root-to-leaf path such that all the elements
along the
//          path form a monotonically increasing or
decreasing
//          sequence.
//
//          A root-to-leaf path is a sequence of
elements in a tree
//          starting with the root element and
proceeding downward
//          to a leaf (an element with no children).
//
//          An empty tree has no root-to-leaf path.
//
//          A monotonically increasing (decreasing)
sequence is a
//          sequence of numbers where no number is
smaller (larger)
//          than its previous number.
```

Review p1 and p2