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CS-354: Programming Languages
HW7

P462:9.1

Some difference between functions in math and functions in programming are as followed. (1) Mathematical functions are mapping between two sets of value but functions in imperative programming language (PL) encapsulate code that works on the input given by the user. (2) In math there cannot be mapping between two empty sets but this is possible in programming languages. This can take the form of functions that don't have any return values. (3) There are math functions whose set have infinite numbers or values however, when programming we can only have a finite value.

P463:9.3

```
#include<>
Void myFunction(int i, int j){
    cout << "I'm inside of myFunction()" << endl;
    cout << i << endl;
    Cout << j << endl;
}

Int main(){
    int num = 6;
    myFunction(num++, num);
    Return 0;
}
// Sample output:
// 6
// 7
```

P465:9.17

Many languages (like Java) are strongly or statically typed. By using variable argument list, it would not be type safe. In addition to type safety type mismatch can occur because at compile time the number of arguments and the kind of arguments are not known.