

```
// Problem4.java
```

```
class Problem4{  
    public static void main( String[] args ){  
        int a=2, b=5, c;  
        double x=2.5, y=3.5, z;  
        c = f(a, b);  
        z = g(x, c);  
        a = h(y, z, x);  
        x = f( (int)z, b);  
        System.out.println(a + " " + b + " " + c );  
        System.out.println(x + " " + y + " " + z );  
    }  
    static int f(int n, int m){  
        int k = n + m;  
        k *= 2;  
        return k;  
    }  
    static double g(double s, int n){  
        return n*s;  
    }  
    static int h(double r, double s, double t){  
        int m = (int)(r + s + t);  
        return f(m, 1);  
    }  
}
```

```
// Given 2 points, (x1, y1), (x2, y2), write a
// method that determines the length between the
// two points.
class Distance{
    public static void main( String[] args ){
        // call the method from main

    }
    public static double distance(double x1, double y1,
                                   double x2, double y2){
        // your code goes here

    }
}
```

// What does the following program print?

```
public class MethodPractice{
    public static void main(String[] args) {
        System.out.println("func1 = " + func1(func2(5)));
    }
    public static int func1(int x) {
        System.out.println("func1 x = " + x);
        return 2*x;
    }
    public static int func2(int x) {
        int y = func1(x);
        System.out.println("func2 x = " + x);
        return y;
    }
}
```

# Reading in File

- Import statements
- File Object
- Scanner Object

```
import java.io.File;  
import  
java.io.FileNotFoundException;  
...  
    File f = new File("test.txt");  
    Scanner fScnr = new Scanner(f);
```

Now we have access to all of Scanner's methods...nextInt(), nextDouble(), etc.

# Try-Catch Block

- Needed in case file does not exist

```
import java.io.File;
import java.io.FileNotFoundException;
...
try{
    File f = new File("test.txt");
    Scanner fScnr = new Scanner(f);
}
catch(FileNotFoundException e){
    System.out.println(e + " file not found");
}
```

# Demo ReadFile.java

# A Simple Array