

The screenshot shows an IDE with the Explorer panel on the left displaying a project structure for 'Assignment1'. The file 'MyInitials.java' is selected. The main editor shows the code for 'MyInitials.java', which includes a 'main' method that prints a grid of 'W' and 'X' characters. The terminal at the bottom shows the command to run the program and the resulting output, which is a 6x6 grid of characters.

```
1
2 public class MyInitials {
3
4     public static void main(String[] args) {
5         System.out.println(
6             "W W X X W \n"
7             + "W W X X W \n"
8             + "W W X X W \n"
9             + "W W X X W \n"
10            + "WW WW X X WW WW \n"
11            + "WW WW X X WW WW \n"
12            + "W W X X W \n"
13            + "");
14     }
15 }
16
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

2: Java Process Console

```
/Users/spiderman/.zshrc:export1: not valid in this context: Code.app/Contents/Resources/app/bin
spiderman@wuenxindeMacBook-Pro-3 Assignment1 % /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-16.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -Dfile.encoding=UTF-8 -cp /Users/spiderman/Desktop/Java/Assignment1/PartI MyInitials
W W X X W
W W X X W
W W X X W
W W X X W
WW WW X X WW WW
WW WW X X WW WW
W W X X W
spiderman@wuenxindeMacBook-Pro-3 Assignment1 %
```

The screenshot shows the same IDE with the file 'PrintResults.java' selected. The code in 'PrintResults.java' calculates several mathematical values and prints them. The terminal shows the command to run the program and the resulting output, which lists the values of variables a, b, c, d, e, and f.

```
1
2 int c = 12 * 13;
3 double d = 20.0 / 3.0;
4 int e = 100 % 7;
5 double f = Math.pow(4, 3);
6 System.out.println("The value of a is " + a);
7 System.out.println("The value of b is " + b);
8 System.out.println("The value of c is " + c);
9 System.out.println("The value of d is " + d);
10 System.out.println("The value of e is " + e);
11 System.out.println("The value of f is " + f);
12 }
13
14
15
16
17
18
19
20
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

2: Java Process Console

```
spiderman@wuenxindeMacBook-Pro-3 Assignment1 % cd /Users/spiderman/Desktop/Java/Assignment1 ; /usr/bin/env /Library/Java/JavaVirtualMachines/jdk-16.jdk/Contents/Home/bin/java -XX:+ShowCodeDetailsInExceptionMessages -Dfile.encoding=UTF-8 -cp /Users/spiderman/Desktop/Java/Assignment1/PartI PrintResults
The value of a is 15
The value of b is 27
The value of c is 156
The value of d is 6.666666666666667
The value of e is 2
The value of f is 64.0
spiderman@wuenxindeMacBook-Pro-3 Assignment1 %
```

```
GetNameConsole.java — Assignment1
PartII > GetNameConsole.java > Java Language Support > GetNameConsole > main
1 import java.util.Scanner;
2
3 public class GetNameConsole {
4
5     Run | Debug
6     public static void main(String[] args) {
7         System.out.print("Enter your name: ");
8         try (Scanner in = new Scanner(System.in)) {
9             String name = in.nextLine();
10            System.out.print("Hello, "+ name);
11        }
12    }
13 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

2: Java Process Console

spiderman@wuwxindeMacBook-Pro-3 Assignment1 % cd /Users/spiderman/Desktop/Java/Assignment1 ; ./usr/bin/env /Library/Java/JavaVirtualMachines/jdk-16.jdk/Contents/Home/bin/java -XX:-ShowCodeDetailsInExceptionMessages -Dfile.encoding=UTF-8 -cp /Users/spiderman/Desktop/Java/Assignment1/bin GetNameConsole

Enter your name: wxw

Hello, wxw

spiderman@wuwxindeMacBook-Pro-3 Assignment1 %

```
GetNameArgument.java — Assignment1
PartII > GetNameArgument.java > Java Language Support > GetNameArgument > main
1 public class GetNameArgument {
2
3     Run | Debug
4     public static void main(String[] args) {
5         // This will print out the contents of the args array.
6         // Don't worry about the specifics of how this works. We
7         // will get to that next week
8         System.out.print("Hello " + java.util.Arrays.toString(args)+"!");
9         // if there are command line arguments, then the first will be in
10        // args[0], the second in arg[1], and so on. If there are no command
11        // line arguments, then args[0] will give an error
12    }
13 }
14 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

5: zsh

/Users/spiderman/.zshrc:export:1: not valid in this context: Code.app/Contents/Resources/app/bin

spiderman@wuwxindeMacBook-Pro-3 PartIII % javac GetNameArgument.java

spiderman@wuwxindeMacBook-Pro-3 PartIII % java GetNameArgument wxw

Hello [wxw]

spiderman@wuwxindeMacBook-Pro-3 PartIII %

WireCapacitance.java — Assignment1

GetNameConsole.javaWireCapacitance.java x

PartIII > WireCapacitance.java > Java Language Support > WireCapacitance

```
1 class WireCapacitance {
2
3
4     Run | Debug
5     public static void main(String[] arguments) {
6         double absolutePermittivity = 8.85E-12;
7         double initialDistance = .01;
8         double finalDistance = .005;
9         double wireLength = 0.5;
10        double wireRadius = .002053;
11        double topresult = Math.PI * absolutePermittivity * wireLength;
12        double bottomresultinitial = Math.log(initialDistance/(2*wireRadius)+
13            Math.sqrt((Math.pow(initialDistance,2)/(4*Math.pow(wireRadius,2)))-1));
14        double bottomresultfinal = Math.log(finalDistance/(2*wireRadius)+
15            Math.sqrt((Math.pow(finalDistance,2)/(4*Math.pow(wireRadius,2)))-1));
16        double c2 = topresult/bottomresultfinal;
17        double capacitanceDifference = c2-c1;
18        System.out.println("The wires' change in capacity when moved from a distance of "
19            + " + initialDistance +
20            " m to " + finalDistance + " m is " + capacitanceDifference + " farads");
21    }
22 }
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE

7: zsh

```
/Users/spiderman/.zshrc:export:1: not valid in this context: Code.app/Contents/Resources/app/bin
spiderman@wuwenxindeMacBook-Pro-3 PartIII % javac class WireCapacitance.java
error: invalid flag: class
Usage: javac <options> <source files>
use --help for a list of possible options
spiderman@wuwenxindeMacBook-Pro-3 PartIII % javac WireCapacitance.java
spiderman@wuwenxindeMacBook-Pro-3 PartIII % java WireCapacitance
The wires' change in capacity when moved from a distance of 0.01 m to 0.005m is 1.2399781702771603E-11 farads
spiderman@wuwenxindeMacBook-Pro-3 PartIII %
```