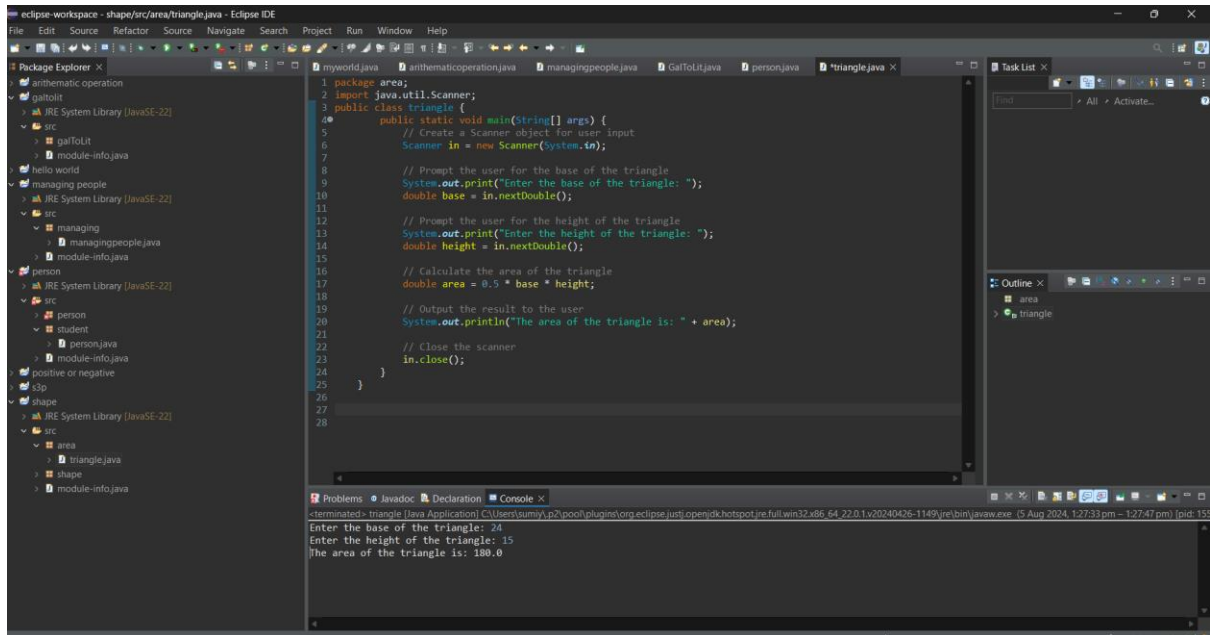


JF Section 4.3 practice:

1.

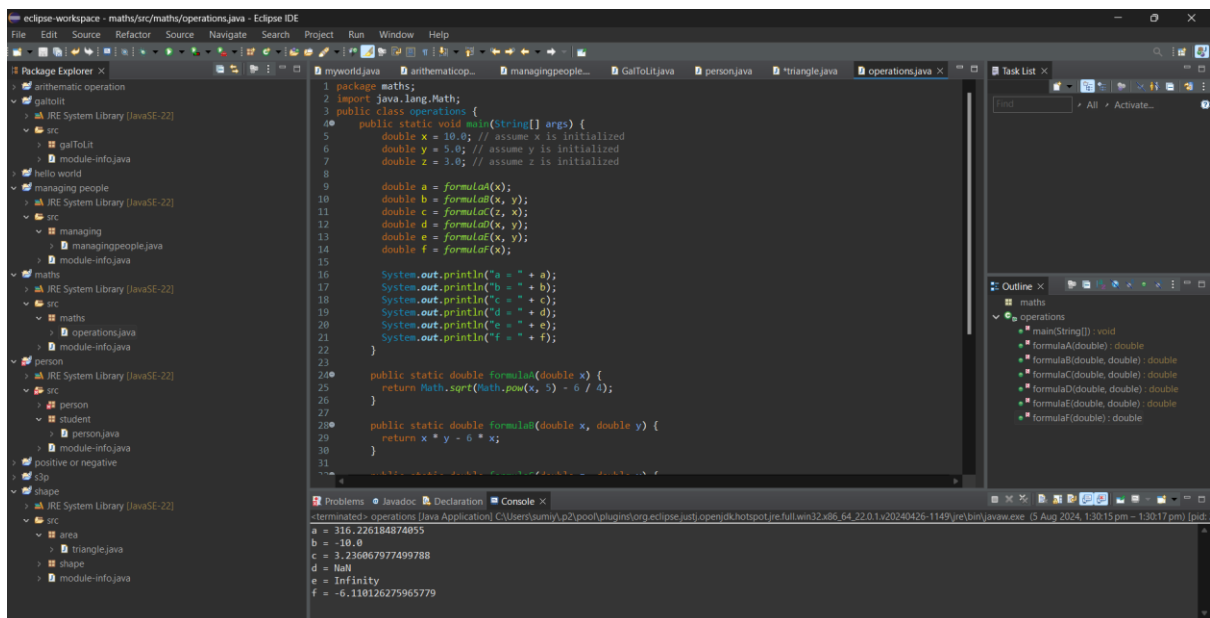


```
1 package area;
2 import java.util.Scanner;
3 public class triangle {
4     public static void main(String[] args) {
5         // Create a Scanner object for user input
6         Scanner in = new Scanner(System.in);
7
8         // Prompt the user for the base of the triangle
9         System.out.print("Enter the base of the triangle: ");
10        double base = in.nextDouble();
11
12        // Prompt the user for the height of the triangle
13        System.out.print("Enter the height of the triangle: ");
14        double height = in.nextDouble();
15
16        // Calculate the area of the triangle
17        double area = 0.5 * base * height;
18
19        // Output the result to the user
20        System.out.println("The area of the triangle is: " + area);
21
22        // Close the scanner
23        in.close();
24    }
25 }
26
27
28
```

Console Output:

```
<terminated> triangle [Java Application] C:\Users\sumiy\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.22.0.1\j220240426-1149\jre\bin\javaw.exe (5 Aug 2024, 1:27:33 pm - 1:27:47 pm) [pid: 155]
Enter the base of the triangle: 24
Enter the height of the triangle: 15
The area of the triangle is: 180.0
```

2.

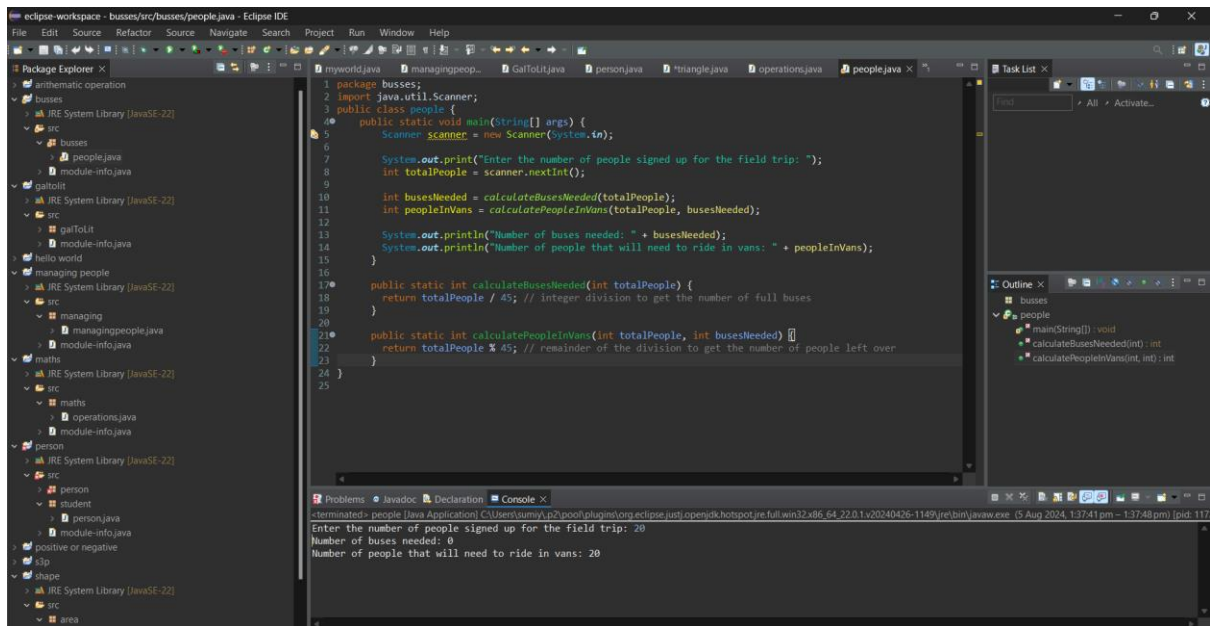


```
1 package maths;
2 import java.lang.Math;
3 public class operations {
4     public static void main(String[] args) {
5         double x = 10.0; // assume x is initialized
6         double y = 5.0; // assume y is initialized
7         double z = 3.0; // assume z is initialized
8
9         double a = formulaA(x);
10        double b = formulaB(x, y);
11        double c = formulaC(x, y);
12        double d = formulaD(x, y);
13        double e = formulaE(x, y);
14        double f = formulaF(x);
15
16        System.out.println("a = " + a);
17        System.out.println("b = " + b);
18        System.out.println("c = " + c);
19        System.out.println("d = " + d);
20        System.out.println("e = " + e);
21        System.out.println("f = " + f);
22    }
23
24    public static double formulaA(double x) {
25        return Math.sqrt(Math.pow(x, 5) - 6 / 4);
26    }
27
28    public static double formulaB(double x, double y) {
29        return x * y - 6 * x;
30    }
31 }
32
33
```

Console Output:

```
<terminated> operations [Java Application] C:\Users\sumiy\p2\pool\plugins\org.eclipse.justi.openjdk.hotspot.jre.full.win32.x86_64.22.0.1\j220240426-1149\jre\bin\javaw.exe (5 Aug 2024, 1:30:15 pm - 1:30:17 pm) [pid: 155]
a = 316.226184874055
b = -10.0
c = 3.236067977499788
d = NaN
e = Infinity
f = -6.110126275965779
```

3.



4.

