

WEEK-01

```
J evenodd.java > evenodd
1  import java.util.Scanner;
2  class evenodd
3  {
4      Run | Debug
      public static void main(String[] args)
5      {
6          Scanner sc=new Scanner(System.in);
7          System.out.println("Enter a Number:");
8          int num=sc.nextInt();
9          if (num%2==0)
10         {
11             System.out.println(num + "is even");
12         }
13         else
14         {
15             System.out.println(num + "is odd");
16         }
17         sc.close();
18     }
19 }
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> javac evenodd.java
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> java evenodd
Enter a Number:
2
2is even
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> |
```

```
J addtwonum.java > addtwonum
1  import java.util.Scanner;
2  class addtwonum
3  {
4      Run | Debug
      public static void main (String[] args)
5      {
6          Scanner sc=new Scanner(System.in);
7          System.out.println("enter the first num");
8          int a=sc.nextInt();
9          System.out.println("enter the second num");
10         int b=sc.nextInt();
11         int sum=a+b;
12         System.out.println("sum is"+sum);
13         sc.close();
14
15
16
17     }
18
19 }
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> javac addtwonum.java
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> java addtwonum
enter the first num
5
enter the second num
10
sum is15
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> |
```

J swaptwonum.java > ...

```
1  public class swaptwonum {  
    Run | Debug  
2      public static void main(String[] args){  
3          int a=3;  
4          int b=5;  
5          System.out.println("before swapping");  
6          System.out.println("A="+a);  
7          System.out.println("B="+b);  
8          int temp = a;  
9          a=b;  
10         b=temp;  
11         System.out.println("after swapping");  
12         System.out.println("A="+a);  
13         System.out.println("B="+b);  
14  
15     }  
16  
17  
18  
19  
20 }  
21
```

PROBLEMS 7 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\BMSCE\Desktop\SHIRISHA B R> javac addtwonum.java

PS C:\Users\BMSCE\Desktop\SHIRISHA B R> java addtwonum

enter the first num

5

enter the second num

10

sum is15

```
... Welcome quadraticdemo.java X
J quadraticdemo.java > quadraticdemo > main(String[])
1 import java.util.Scanner;
2
3 public class quadraticdemo {
4
5     Run | Debug
6     public static void main(String[] args) {
7         // Create a scanner object to take input
8         Scanner scanner = new Scanner(System.in);
9
10        // Prompt the user for the coefficients a, b, and c
11        System.out.print("Enter coefficient a: ");
12        double a = scanner.nextDouble();
13        System.out.print("Enter coefficient b: ");
14        double b = scanner.nextDouble();
15        System.out.print("Enter coefficient c: ");
16        double c = scanner.nextDouble();
17
18        // Calculate the discriminant
19        double discriminant = b * b - 4 * a * c;
20
21        // Check the nature of the discriminant and calculate the roots
22        if (discriminant > 0) {
23            // Two real and distinct roots
24            double root1 = (-b + Math.sqrt(discriminant)) / (2 * a);
25            double root2 = (-b - Math.sqrt(discriminant)) / (2 * a);
26            System.out.println("The roots are real and distinct.");
27            System.out.println("Root 1: " + root1);
28            System.out.println("Root 2: " + root2);
29        } else if (discriminant == 0) {
30            // One real root (repeated root)
31            double root = -b / (2 * a);
32            System.out.println("The root is real and repeated.");
33            System.out.println("Root: " + root);
34        } else {
35            // Complex roots (imaginary)
36            double realPart = -b / (2 * a);
37            double imaginaryPart = Math.sqrt(-discriminant) / (2 * a);
38            System.out.println("The roots are complex and imaginary.");
39            System.out.println("Root 1: " + realPart + " + " + imaginaryPart + "i");
40            System.out.println("Root 2: " + realPart + " - " + imaginaryPart + "i");
41        }
42
43        // Close the scanner to avoid resource leak
44        scanner.close();
45    }
46}
```

✓ TERMINAL

```
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> javac quadraticdemo.java
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> java quadraticdemo
Enter coefficient a: 3
Enter coefficient b: 4
Enter coefficient c: 10
The roots are complex and imaginary.
Root 1: -0.6666666666666666 + 1.6996731711975948i
Root 2: -0.6666666666666666 - 1.6996731711975948i
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> java quadraticdemo
Enter coefficient a: 1
Enter coefficient b: 2
Enter coefficient c: 1
The root is real and repeated.
Root: -1.0
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> java quadraticdemo
Enter coefficient a: 2
Enter coefficient b: 8
Enter coefficient c: 1
The roots are real and distinct.
Root 1: -0.12917130661302934
Root 2: -3.8708286933869704
PS C:\Users\BMSCE\Desktop\SHIRISHA B R> 
```