23-07-2024 (JAVA)

EX:1

Main.java

```java
public class MathExample {
    public static void main(String[] args) {
        double piValue = Math.PI;
        System.out.println("Value of PI: " + piValue);

        double number = 25;
        double sqrt = Math.sqrt(number);
        System.out.println("Square root of " + number + " is: " + sqrt);
    }
}
```

Output

```
java -cp /tmp/zqRhZWiTpr/MathExample
Value of PI: 3.141592653589793
Square root of 25.0 is: 5.0

=== Code Execution Successful ===
```

EX:2

Main.java

```java
public class MathExpressions {
    public static void main(String[] args) {
        double result1 = -Math.abs(-1.23);
        double result2 = Math.pow(3, 2);
        double result3 = Math.sqrt(121.0) - Math.sqrt(256.0);
        int result4 = Math.abs(Math.min(-3, -5));

        System.out.println("Result 1: " + result1);
        System.out.println("Result 2: " + result2);
        System.out.println("Result 3: " + result3);
        System.out.println("Result 4: " + result4);
    }
}
```

Output

```
java -cp /tmp/ZYGfMqS97x/MathExpressions
Result 1: -1.23
Result 2: 9.0
Result 3: -5.0
Result 4: 5

=== Code Execution Successful ===
```

EX:3

Main.java

```java
public class ComputeBMI {
    public static void main(String[] args) {
        double weight = 70.0;
        double height = 1.75;
        double bmi = weight / (height * height);
        double roundedBMI = Math.round(bmi * 100.0) / 100.0;
        System.out.println("BMI: " + roundedBMI);

    }
}
```

Output

```
java -cp /tmp/WEPSv4f17Y/ComputeBMI
BMI: 22.86

=== Code Execution Successful ===
```