

slip18

```
import java.lang.Math.*;

class s18q1 {

    public static void main(String[] args) {

        double radius = 5.0; // circle

        double base = 10.0; // triangle

        double height = 20.0; // triangle

        double length = 15.0; // rectangle

        double width = 25.0; // rectangle


        System.out.println("Area of the circle: " + calculateArea(radius));

        System.out.println("Area of the triangle: " + calculateArea(base, height));

        System.out.println("Area of the rectangle: " + calculateArea(length, width));

    }


    public static double calculateArea(double radius) {

        return Math.PI * radius * radius;

    }


    public static double calculateArea(double base, double height) {

        return 0.5 * base * height;

    }


    public static double calculateArea(float length, double width) {

        return length * width;

    }

}
```

}

```
import java.io.FileReader;
```

```
import java.io.FileWriter;
```

```
import java.io.IOException;
```

```
class s18q2 {
```

```
public static void main(String[] args) {
```

```
String source = "file3.txt";
```

```
String target = "file4.txt";
```

```
try (FileReader fileReader = new FileReader(source);
```

```
FileWriter fileWriter = new FileWriter(target)) {
```

```
int character;
```

```
while ((character = fileReader.read()) != -1) {
```

```
char ch = (char) character;
```

```
if (Character.isLetter(ch)) {
```

```
if (Character.isUpperCase(ch)) {
```

```
ch = Character.toLowerCase(ch);
```

```
        } else {  
            ch = Character.toUpperCase(ch);  
        }  
    }  
  
    else if (Character.isDigit(ch)) {  
        ch = '*';  
    }  
  
    fileWriter.write(ch);  
}  
  
System.out.println("Data copied successfully with modifications.");  
  
} catch (IOException e) {  
    System.out.println("An error occurred: " + e.getMessage());  
}  
}  
}
```

```
li=[1,2,6,8,9,4,3,5,7,0,9,7,8,5,3,2,4]
```

```
for i in li:
```

```
    if i<5:
```

```
        print(i)
```

```
class Person:

    def __init__(self, name, address):

        self.name = name

        self.address = address


class Employee(Person):

    def __init__(self, name, address, staff_id, salary):

        super().__init__(name, address)

        self.staff_id = staff_id

        self.salary = salary


    def display_details(self):

        print(f"Name: {self.name}")

        print(f"Address: {self.address}")

        print(f"Staff ID: {self.staff_id}")

        print(f"Salary: {self.salary}")

        print("-" * 30)


n = int(input("Enter the number of employees: "))

employees = []


for i in range(n):

    print(f"\nEnter details for Employee {i + 1}:")

    name = input("Enter name: ")

    address = input("Enter address: ")

    staff_id = input("Enter staff ID: ")
```

```
salary = float(input("Enter salary: "))
```

```
employee = Employee(name, address, staff_id, salary)
```

```
employees.append(employee)
```

```
print("\nEmployee Details:")
```

```
print("-" * 30)
```

```
for emp in employees:
```

```
    emp.display_details()
```