

## Java basic problems

### Polymorphism :

1.

```
class Shapes {
    public void area() {
        System.out.println("The formula for area of ");
    }
}
class Triangle extends Shapes {
    public void area() {
        System.out.println("Triangle is ½ * base * height ");
    }
}
class Circle extends Shapes {
    public void area() {
        System.out.println("Circle is 3.14 * radius * radius ");
    }
}
class Main {
    public static void main(String[] args) {
        Shapes myShape = new Shapes(); // Create a Shapes object
        Shapes myTriangle = new Triangle(); // Create a Triangle object
        Shapes myCircle = new Circle(); // Create a Circle object
        myShape.area();
        myTriangle.area();
        myShape.area();
        myCircle.area();
    }
}
```

### 2. Method Overloading :

```
class Shapes {
    public void area() {
        System.out.println("Find area ");
    }
}
```

```

    }
    public void area(int r) {
        System.out.println("Circle area = "+3.14*r*r);
    }

    public void area(double b, double h) {
        System.out.println("Triangle area="+0.5*b*h);
    }
    public void area(int l, int b) {
        System.out.println("Rectangle area="+l*b);
    }
}

class Main {
    public static void main(String[] args) {
        Shapes myShape = new Shapes();

        myShape.area();
        myShape.area(5);
        myShape.area(6.0,1.2);
        myShape.area(6,2);

    }
}

```

### 3. Method Overriding :

```

class Vehicle{

    void run(){System.out.println("Vehicle is moving");}
}

class Car2 extends Vehicle{

    void run(){System.out.println("car is running safely");}
}

```

```
public static void main(String args[]){  
    Car2 obj = new Car2();//creating object  
    obj.run();  
}  
}
```