Area of a Rectangle

```
import java.util.* ;
import java.io.*;
public class Rectangle {
    // Write your code here.
    int length;
    int breadth;
    public int getArea()
    {
        return (length*breadth);
    }
}
```

Complex Number Class

```
import java.util.* ;
import java.io.*;
import java.util.Scanner;

class ComplexNumbers {

    // Write your code here
    public void plus(int R1,int I1,int R2,int I2)
    {
        int R3 = R1 + R2;
        int I3 = I1 + I2;
        print(R3, I3);
    }
    public void multiply(int R1,int I1,int R2,int I2)
    {
        int R3 = (R1 * R2) - (I1*I2);
        int I3 = (R2 * I1) + (R1*I2);
        print(R3, I3);
    }
    public void print(int R1, int I1)
    {
        System.out.println(R1 + " + i" + I1);
    }
}

class Solution {
```

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

        // Write your code here
        Scanner user_input = new Scanner(System.in);
        int R1 = user_input.nextInt();
        int I1 = user_input.nextInt();
        int R2 = user_input.nextInt();
        int I2 = user_input.nextInt();
        ComplexNumbers obj = new ComplexNumbers();
        int n = user_input.nextInt();
        switch(n)
        {
            case 1:
            {
                obj.plus(R1,I1,R2,I2);
                //obj.print(R2,I1);
                break;
            }
            case 2:
            {
                obj.multiply(R1,I1,R2,I2);
                //obj.print(R2,I1);
                break;
            }
        }
    }
}
```

Constructor in Square Class

```
import java.util.* ;
import java.io.*;
class Square {

    // Write your code here
    public void printArea()
    {
        int area = 10*10;
        System.out.println(area);
    }
    public void printArea(int len)
```

```
    {
        int area = len*len;
        System.out.println(area);
    }
}

class Solution {

    public static void main(String args[]) {

        // Write your code here
        Square obj = new Square();
        obj.printArea();
        obj.printArea(7);
    }
}
```

Fraction Class

```
import java.util.* ;
import java.io.*;

class Fraction {

    // Complete the class
    public void add(int[] num1,int[] denom1,int num2,int denom2)
    {
        num1[0] = (num1[0]*denom2) + (num2*denom1[0]);
        denom1[0] = denom1[0]*denom2;
        simplify(num1, denom1);
        //print(num3, denom3);
    }
    public void multiply(int[] num1,int[] denom1,int num2,int denom2)
    {
        num1[0] = (num1[0]*num2);
        denom1[0] = (denom1[0]*denom2);
        simplify(num1, denom1);
    }
    public void simplify(int[] num1, int[] denom1)
    {
        int x = num1[0]>denom1[0]?denom1[0]:num1[0];
```

```
        for(int i=2; i<=x; i++)
        {
            while(num1[0]%i==0 && denom1[0]%i==0)
            {
                num1[0] = num1[0]/i;
                denom1[0] = denom1[0]/i;
            }
        }
        print(num1, denom1);
    }
    public void print(int[] num1, int[] denom1)
    {
        System.out.println(num1[0] + "/" + denom1[0]);
    }
}
class Solution {

    public static void main(String args[]) {

        // Write your code here
        Scanner user_input = new Scanner(System.in);
        int[] num1 = new int[1];
        int[] denom1 = new int[1];
        num1[0] = user_input.nextInt();
        denom1[0] = user_input.nextInt();
        int no_of_query = user_input.nextInt();
        for(int i=0; i<no_of_query; i++)
        {
            int n = user_input.nextInt();
        int num2 = user_input.nextInt();
        int denom2 = user_input.nextInt();
        Fraction obj = new Fraction();
        switch(n)
        {
            case 1:
            {
                obj.add(num1, denom1, num2, denom2);
                break;
            }
            case 2:
            {
                obj.multiply(num1, denom1, num2, denom2);
                break;
```

```
            }
        }
        }
    }
}
```

Print Name and age

```
import java.util.* ;
import java.io.*;
class Person {

    // Complete the class
    private String name1;
    private int age1;
    public void setValuex(String name, int age)
    {
        name1 = name;
        age1 = age;
        System.out.print("The name of the person is " + name1 + " and
the age is " + age1 + ". ");
    }
}

class Solution {

    public static void main(String args[]) {

        // Write your code here
        Scanner user_input = new Scanner(System.in);
        String name = user_input.next();
        int age = user_input.nextInt();
        Person obj = new Person();
        obj.setValuex(name, age);
    }
}
```