QUESTION 3:

3.
Create
an abstract class **Calculate** which has three double members -say **x**,
y and **result**. Include a method **calc**. Derive three classes
from **Calculate** which performs any three arithmetic operations on the two
variables **x** and **y** and assign the result to the variable **result**.
Make appropriate declarations and definitions.

```
import java.util.Scanner;
import java.lang.Math;
abstract class Calculate
{
Calculate(){}
double x,y,result;
abstract void calc();
}
class Arith1 extends Calculate
{
Scanner s=new Scanner(System.in);
void calc()
{
System.out.println("Enter values for x and y");
x=s.nextDouble();
y=s.nextDouble();
result=x+y;
System.out.println("Sum= "+result);
}
Arith1(){}
}


class Arith2 extends Calculate
{
Scanner s=new Scanner(System.in);
void calc()
{
System.out.println("Enter values for x and y");
x=s.nextDouble();
y=s.nextDouble();
result=x*y;
System.out.println("Product= "+result);
}
Arith2(){}
}
```

```
class Arith3 extends Calculate
{
Scanner s=new Scanner(System.in);
void calc()
{
System.out.println("Enter values for x and y");
x=s.nextDouble();
y=s.nextDouble();
result=x/y;
System.out.println("Quotient="+result);
}
Arith3(){}
}


class Lab6
{
public static void main(String xx[])
{
Arith1 a =new Arith1();
a.calc();
Arith2 b =new Arith2();
b.calc();
Arith3 c =new Arith3();
c.calc();

}
}
```

```
C:\Users\G Sai Madhav\Desktop\OOJ\JAVA PROGRAMS\7TH JAVA PROGRAM>javac Lab6.java

C:\Users\G Sai Madhav\Desktop\OOJ\JAVA PROGRAMS\7TH JAVA PROGRAM>java Lab6
Enter values for x and y
2
3
Sum= 5.0
Enter values for x and y
4
5
Product= 20.0
Enter values for x and y
6
7
Quotient=0.8571428571428571

C:\Users\G Sai Madhav\Desktop\OOJ\JAVA PROGRAMS\7TH JAVA PROGRAM>
```