OOJ Lab Programs

Lab - 1 program

develop a java program that prints all real soln to quadriatic equation $ax^2 + bx + c = 0$. Read a, b & c. if the discriminate $b^2 - 4ac$ is -ve, display message stating NO - real soln.s.

Code -

```
import java.util. *;
import java.lang. *;
public class quadratic
{
public static void main ( String args [] )
{
double a, b, c, r₁ = 0, r₂ = 0;
System.out.println (" Enter coefficients of a, b & c
    for the Quadriatic equation:");
Scanner in = new Scanner (system.in);
    a = in.next Double();
    b = in.next Double ();
    C = in.next Double ();
double d = (b*b)-(4*a*c);
    if (d == 0)
{
System.out.println (" two equal & real roots");
    r1 = -b/2*a;
    r2 = r1;
}
    else if (d > 0)
{
System.out.println (" two distint real roots");
    r1 = -b+ Math. sqrt (d)/2*a;
```

```
        r2 = -b - Math.sqrt (d))/2 *a;
    }
    else
    {
    System.out.print ("No real roots");
        System.exit (0);
    }

    System.out.println (" Roots of Quadratic equation
    are r1 = " +r1+ " & r2 = " +r2);
        }
    }
```

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