

Lab program - 1

Q) Quadratic eqn roots.

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Ans: import java.util.Scanner;
public class quadratic {
    public static void main (String[] args) {
        Scanner input = new Scanner (System.in);
        double a, b, c, r;

        System.out.println ("Input a: ");
        a = input.nextDouble();

        System.out.println ("Input b: ");
        b = input.nextDouble();

        System.out.println ("Input c: ");
        c = input.nextDouble();

        r = b * b - 4.0 * a * c;

        double x1, x2;

        if (r > 0.0)
        {
            x1 = -b + Math.sqrt(r) / (2 * a);
            x2 = -b - Math.sqrt(r) / (2 * a);

            System.out.println ("Roots are: " + x1 + " & " + x2);
        }
        else if (r == 0.0)
        {
            x1 = x2 = -b / (2 * a);

            System.out.println ("The roots are equal " + x1);
        }
        else
        {
            System.out.println ("No real roots");
        }
    }
}

```