

11/2/23

```
char c = 'a';  
int i2 = c;  
System.out.println("char to int conversion");  
System.out.println(c + " " + i2);  
}
```

⑦ Quadratic

```
import java.util.Scanner;  
class Quadratic  
{  
    int a, b, c;  
    double x1, x2, d;  
    void getd()  
    {  
        Scanner S = new Scanner(System.in);  
        System.out.println("Enter the coefficients of a, b, c");  
        a = S.nextInt();  
        b = S.nextInt();  
        c = S.nextInt();  
    }  
    void compute()  
    {  
        while (a == 0)  
        {  
            System.out.println("not a quadratic eq");  
            System.out.println("enter a non-zero for a");  
            Scanner S = new Scanner(System.in);  
            a = S.nextInt();  
        }  
        d = b*b - 4*a*c;  
        if (d == 0)  
        {
```

```

r1 = (-b) / (2*a);

```

```

System.out.println("Roots are equal and real");

```

```

System.out.println("Root1 = root2 = " + r1);

```

```

}

```

```

else if (d > 0)

```

```

{

```

```

    r1 = ((-b) + (Math.sqrt(d))) / (double)(2*a);

```

```

    r2 = ((-b) - (Math.sqrt(d))) / (double)(2*a);

```

```

    System.out.println("Roots are real and distinct");

```

```

    System.out.println("Root1 = " + r1 + "Root2 = " + r2);

```

```

}

```

```

else if (d < 0)

```

```

{

```

```

    System.out.println("Roots are imaginary");

```

```

    r1 = (-b) / (2*a);

```

```

    r2 = Math.sqrt(-d) / (2*a);

```

```

    System.out.println("Root1 = " + r1 + " + i" + r2);

```

```

    System.out.println("Root2 = " + r1 + " - i" + r2);

```

```

}

```

```

}

```

```

}

```

```

class QuadraticMain

```

```

{

```

```

    public static void main(String args[])

```

```

    {

```

```

        Quadratic q = new Quadratic();

```

```

        q.gcd();

```

```

        q.compute();

```

```

    }

```

```

}

```


11/12/23

Outkust

⑤ Nithin K Patel 1BM22CS184
Enter values of a, b, c

1

2

1

roots are real and equal

$$\text{root 1} = \text{root 2} = -1$$

⑥ Enter values of a, b, c

1

-3

2

roots are real and distinct

$$\text{root 1} = 2.0$$

$$\text{root 2} = 1.0$$

⑦ Enter values of a, b, c

1

1

2

roots are imaginary

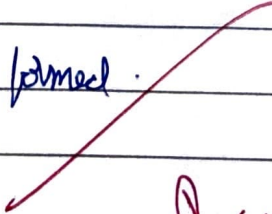
⑧ Enter values of a, b, c

0

4

2

roots cannot be formed.


12/12/23