(a) A Java program to print all the real solutions.

```
import java.util.Scanner;
class Quadratic
{
    int a,b,c;
    double r1,r2,d;
    void getd()
    {
        Scanner s = new Scanner (System.in);
        System.out.println (" Enter the coefficient of a,b,c");
        a = s.nextInt();
        b = s.next Int();
        c = s.next Int();
    }
    void compute ()
    {
        while (a==0)
        {
            System.out.println ("Not a quadratic equation);
            system.out.println ("Enter a non zero value of a:");
            Scanner s = new Scanner (System.in);
            a = s.nextInt();
        }
        d = b*b-4*a*c;
        if (d==0)
        {
            r1 = (-b)/(2*a)
```

```java
        System.out.println ("Roots are real and equal");
        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 ("Root1 = " + r1 + "-i"
            + r2);
    }
}
}
}
```

```java
class QuadraticMain
{
    public static void main (String args[])
    {
        System.out.print (" Rishabh, 10mac5za");
        Quadratic q = new Quadratic();
        q.get d();
        q.compute ();
    }
}
```

(Q) A java program to find the area of the rectangle.

```java
class RectangleArea {
    public static void main (String args []){
        int length, breadth;
        length = Integer.parseInt (args[0]);
        breadth = Integer.parseInt (args[1]);
        int area = length * breadth;
        System.out.print ln (" Rishabh , 18M22c5za");
        System.out.print ln (" area = " + area);
    }
}
```

(Q) A java program to find the factorial of a number

```java
class factorial {
    public static void main (String args[])
    {
        int fac = 1;
        System.out.println ("Enter a number:");
        Scanner sc = new Scanner (system.in);
        int n = sc.nextInt();
        for (int i = 1; i <= n; i++) {
            fac = fac*i;
        }

        System.out.println ("Rishabh, BM22CS221");
        System.out.println ("Factorial:" + fac);
    }
}
```

(Q) To find the given 5 digit int is palindrome or not

```java
class palindrome {
    public static void main (String args[])
    {
        int n, t, rem, rev = 0;
        Scanner sc = new Scanner (system.in);
        System.out.print In ("Enter a 5 digit numbers");
        n = sc.nextInt();
```

```java
t = n;
while (t > 0) {
    rem = t % 10;
    rev = rev * 10 + rem;
    t = t / 10;
}
if (rev == n) {
    System.out.println("Palindrome");
}

else {
    System.out.println("not Palindrome");
}
}
}
}
```

(Q) To check whether the number is prime or not.

```java
import java.util.*;

class isPrime {

static void isPrime (int n) {
    int i, m=0, flag = 0;
    m = n/2;
    if (n==0 || n==1) {
        System.out.println(n + " is not a prime number");
    }
}
}
```

```java
else {
    for (i=2; i<m; i++) {
        if (n%i == 0) {
            System.out.println (n + " is not a prime");
            break;
        }
    }
    if (flag == 0 ) {
        System.out.println (n + " is a prime");
    }
}
}

public static void main (String args[]) {
    int i;
    Scanner sc = new Scanner(System.in);
    System.out.println ("Enter i : ");
    i = sc.nextInt();
    isprime(i);
}
}
```

(Q) Find sum of 5 digits in a number.

```java
class sum of digits {
    public static void main (String args[]) {
        long number, sum;
        Scanner sc = new Scanner (System.in);
        System.out.println ("Enter no :");
        number = sc.nextLong ();

        for (sum = 0; number != 0 ; number /= 10 ) {
            sum = sum + number % 10
        }

        System.out.println ("Sum of digits" + sum );

    }
}
```

(Q) Find the greatest number.

```java
class largestmethod {
    static void largest (int i, int j, int k) {
        if (i >= j && i >= k) {
            System.out.println (i + " is largest");
        }
        if (j >= i && j >= k)
            System.out.println (j + " is the largest");
    }
}
```

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