

```

5 . import java.util.Scanner;

import java.io.*;

class GCD
{
    static int gcd(int x, int y)
    {
        int r=0, a, b;

        a = (x > y) ? x : y; // a is greater number

        b = (x < y) ? x : y;

        r = b;

        while(a % b != 0)
        {
            r = a % b;

            a = b;

            b = r;

        }

        return r;
    }

    static int lcm(int x, int y)
    {
        int a;

        a = (x > y) ? x : y; // a is greater number

        while(true)
        {
            if(a % x == 0 && a % y == 0)

                return a;

            ++a;
        }
    }
}

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    }
}
public static void main(String args[])
{
    try
    {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter N value: ");
        int N=sc.nextInt();
        if(N==2)
        {
            System.out.println("Enter the two numbers: ");
            int x = sc.nextInt();
            int y = sc.nextInt();

            System.out.println("The GCD of two numbers is: " + gcd(x, y));
            System.out.println("The LCM of two numbers is: " + lcm(x, y));
        }
        if(N==3)
        {
            System.out.println("Enter the three numbers: ");
            int x = sc.nextInt();
            int y = sc.nextInt();
            int z = sc.nextInt();
            int i;
            int a=Math.max(x,Math.max(y,z));
            while(true)
            {
                if(a % x == 0 && a % y == 0 && a%z==0)

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    {
        break;
    }
else
    ++a;
}
System.out.println("LCM of "+x+", "+y+" and "+z+" is "+a);
int b=Math.min(x,Math.min(y,z));
for(i=b;i>=0;i--)
{
    if((x%i==0) && (y%i==0) && (z%i==0))
        break;
}
System.out.println("GCD of "+x+", "+y+" and "+z+" is "+i);
}
}
catch(Exception e)
{
    System.out.println("Enter only numbers");
}
}
}

```

Output

Clear

```
java -cp /tmp/FqqJgP36P7 GCD
```

Enter N value:

2

Enter the two numbers:

16

20

The GCD of two numbers is: 4

The LCM of two numbers is: 80

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