Armstrong.java

```java
package com.assignmentAds.org;

public class Armstrong {
    public static boolean check(int n ) {
        int m=n;
        int temp=0;
        if(temp==m) {
            return true;
        }
        int  i =n%10;
        int p=i*i*i;
        temp=temp+p;
        check(n/10);
        System.out.println(n+"i: "+i+"p: "+p+"temp: "+temp);
        return false;
    }
    public static void main(String[] args) {
        System.out.println(Armstrong.check(343));
    }
}

```

Console

```
<terminated> Armstrong [Java Application] C:\Users\LENOVO\Downloads\eclipse-jee-2023-12-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk.h
3i: 3p: 27temp: 27
34i: 4p: 64temp: 64
343i: 3p: 27temp: 27
false
```

automorphicNo.java

```java
package com.assignmentAds.org;

import java.util.Scanner;

public class automorphicNo {
    static boolean isAutomorphic(int n, int or , int sq) {
        if (n==sq%10) {
            return true;
        }if (sq==0) {
            return false;
        }return isAutomorphic(n, or, sq/10);
    }
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        int num=sc.nextInt();
        int sq= num*num;

        boolean res= isAutomorphic(num, num, sq);

            if (res) {
                System.out.println(num +"is an automorphic No:");
            }else {
                System.out.println(num +"is not an automorphic No:");
            }

    }

}

```

Console

<terminated> automorphicNo [Java Application] C:\Users\LENOVO\Downloads\eclipse-jee-2023-12-R-win32-x86_64\eclipse\plugin

```
5
5is an automorphic No:
```

GCD.java

```java
package com.assignmentAds.org;

import java.util.Scanner;

public class GCD {
    static int findGcd(int num1, int num2) {
         if(num2==0) {
             return num1;
         }return findGcd(num2,num1%num2);
     }
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter num1:");
        int num1 = sc.nextInt();
        System.out.println("Enter num2 :");
        int num2=sc.nextInt();

        int gcd=findGcd(num1, num2);
        System.out.println("GCD of "+num1 +" and "+num2 +"is :"+gcd);
    }

}

```

Console

<terminated> GCD [Java Application] C:\Users\LENOVO\Downloads\eclipse-jee-2023-12-R-win32-x86_64\eclipse\plugins\org.eclipse.jus

```
Enter num1:
5
Enter num2 :
4
GCD of 5 and 4is :1
```

palindrome.java

```java
package com.assignmentAds.org;

import java.util.Scanner;

public class palindrome {
    static int rev(int num ,int revNum){
        if(num==0){
            return revNum;
        }
        int digit =num%10;
        revNum=revNum*10+digit;
        return rev(num/10,revNum);
    }
    public static void main(String[] args) {
         Scanner sc = new Scanner(System.in);
            System.out.println("Enter NO:");
            int n= sc.nextInt();
            if(n==rev(n,0)){
                System.out.println("Number is palindrome");
            }else
            System.out.println("Number is not palindrome");
        }

}
```

Console

```
<terminated> palindrome [Java Application] C:\Users\LENOVO\Downloads\eclipse-jee-2023-12-R-win32-x86_64\eclipse\plugin
Enter NO:
112211
Number is palindrome
```

primeFactor.java

```java
package com.assignmentAds.org;

import java.util.Scanner;

public class primeFactor {
 static void printPrimeFactors(int num, int div) {
     if (num <=1) {
         return;
     }
     if (num%div==0) {
         System.out.print(div+" ");
         printPrimeFactors(num/div,div);
     }else
         printPrimeFactors(num, div+1);
 }
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter No:");
        int num=sc.nextInt();
        sc.close();


        System.out.println("Prime factors are:");
        printPrimeFactors(num,2);

    }

}

```

Console

<terminated> primeFactor [Java Application] C:\Users\LENOVO\Downloads\eclipse-jee-2023-12-R-win32-x86_64\ecli

```
Enter No:
78
Prime factors are:
2 3 13
```

primeNumber.java

```java
package com.assignmentAds.org;

import java.util.Scanner;

public class primeNumber {
    static boolean isPrime(int num, int div) {
        if (num<=1) {
            return false;
        }if (div==1) {
            return true;
        }if (num%div==0) {
            return false;
        }return isPrime(num, div-1);
    }
    public static void main(String[] args) {
    Scanner sc = new Scanner(System.in);
    System.out.println("Enter a num: ");
    int num2=sc.nextInt();

    if(isPrime(num2, num2/2)) {
        System.out.println(num2+" is a prime number.");
    }else {
        System.out.println(num2+" is not a prime number.");
    }
    }

}

```

Console

<terminated> primeNumber [Java Application] C:\Users\LENOVO\Downloads\eclipse-jee-2023-12-R-win32-x86_64\eclipse\plug

ers\LENOVO\Downloads\eclipse-jee-2023-12-R-win32-x86_64\eclipse\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86

61 is a prime number.

LCM.java

```java
package com.assignmentAds.org;

import java.util.Scanner;

public class LCM {
 static int findLcm(int num1, int num2){
    return (num1*num2)/findGcd(num1,num2);
 }static int findGcd(int num1, int num2) {
     if(num2==0) {
         return num1;
     }return findGcd(num2,num1%num2);
 }
    public static void main(String[] args) {
        Scanner sc = new Scanner(System.in);
        System.out.println("Enter num1:");
        int num1=sc.nextInt();
        System.out.println("Enter num2:");
        int num2=sc.nextInt();
                sc.close();

        int lcm =findLcm(num1, num2);
        System.out.println("LCM of "+num1 +"and "+num2 +" is:"+lcm);
    }

}
```

Console

<terminated> LCM [Java Application] C:\Users\LENOVO\Downloads\eclipse-jee-2023-12-R-win32-x86_64\eclipse\pluc

```
Enter num1:
45
Enter num2:
65
LCM of 45and 65 is:585
```