36. Write a Java program to find power of a number using for loop.

```
import java.util.Scanner;
public class Day8a {
    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter a number:  ");
        int number=scan.nextInt();
        System.out.println("Enter power: ");
        int power=scan.nextInt();
        int value=1;
        for(int i=1;i<=power;i++){
            value=value*number;
        }
        System.out.println("value of power is: "+value);
    }
}
```

43. Write a Java program to check whether a number is Armstrong number or not.

```
import java.util.Scanner;
public class Day8b {
    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter a number to find if its Armstrong number or not: ");
        int number=scan.nextInt();
        int temp=number;
        int sum=0;
        while(number>0){
            int digit = number % 10;
            number/=10;
                sum=sum+(digit*digit*digit);
            }
        if(sum==temp){
            System.out.println("The given number is Armstrong number: "+temp);
      }
        else{
            System.out.println("Not an Armstrong number: "+temp);
        }
    }
}
```

33. Write a Java program to find frequency of each digit in a given integer.

```
import java.util.Scanner;
public class Day8c {
    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter a number to find its frequency of
digits: ");
        int number=scan.nextInt();
        int zcount=0;
        int ocount=0;
        int twcount=0;
        int thcount=0;
        int focount=0;
```

```
int ficount=0;
int sicount=0;
int secount=0;
int ecount=0;
int ncount=0;
while(number>0) {
    int digit = number % 10;
    number /= 10;
    if (digit == 0) {
        zcount += 1;
    }
     if (digit == 1) {
        ocount += 1;
    }
    if (digit == 2) {
        twcount += 1;
    }
    if (digit == 3) {
        thcount += 1;
    }
    if (digit == 4) {
        focount += 1;
    }
    if (digit == 5) {
        ficount += 1;
    }
    if (digit == 6) {
        sicount += 1;
    }
    if (digit == 7) {
        secount += 1;
    }
    if (digit == 8) {
        ecount += 1;
    }
    if (digit == 9) {
        ncount += 1;
    }
}
if(zcount>0)
    System.out.println("Number of Zero are: " + zcount);
if(ocount>0)
    System.out.println("Number of One are: " + ocount);
if(twcount>0)
    System.out.println("Number of Two are: " + twcount);
if(thcount>0)
    System.out.println("Number of Three are: " + thcount);
if(focount>0)
    System.out.println("Number of Four are: " + focount);
if(ficount>0)
```

```
            System.out.println("Number of Five are: " + ficount);
        if(sicount>0)
            System.out.println("Number of Six are: " + sicount);
        if(secount>0)
            System.out.println("Number of Seven are: " + secount);
        if(ecount>0)
            System.out.println("Number of Eight are: " + ecount);
        if(ncount>0)
            System.out.println("Number of Nine are: " + ncount);

    }
}
```

44. Write a Java program to print all Armstrong numbers between 1 to n.

```
import java.util.Scanner;
public class Day8d {
    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter a number to print armstrong
numbers till that: ");
        int number=scan.nextInt();
        for(int i=10;i<=number;i++){
            int temp=i;
            int sum=0;
            while(temp!=0) {
               int digit=temp%10;
                sum = sum + (digit * digit * digit);
                temp /= 10;
            }
                if(sum==i) {
                    System.out.println(i);
                }
        }
    }
}
```

47. Write a Java program to check whether a number is Strong number or not.

```
import java.util.Scanner;
public class Day8e {
    public static void main(String[] args) {
        Scanner scan=new Scanner(System.in);
        System.out.println("Enter a number to find if it is strong number: ");
        int number=scan.nextInt();
```

```
        int temp=number;
        int sum=0;
        while(number!=0){
            int digit=number%10;
            int product=1;
            for(int i=digit;i>=1;i--) {
               product*=i;
           }
            sum=sum+product;
            number/=10;
        }
        if(sum==temp){
            System.out.println("Given number is Strong number: "+sum);
        }
        else{
            System.out.println("Give number is not a Strong number: "+sum);
        }
    }
}
```