1. Write a java program to check whether given number is Armstrong number or not

```
package jeevan;
import java.util.Scanner;

public class armstron_no {

	public static void main(String[] args)
	{
		int n,rem,sum=0,temp;
	System.out.println("Enter a number:");
	Scanner obj = new Scanner(System.in);
	n=obj.nextInt();
	temp=n;
	while(n>0) {
		rem=n%10;
		sum=sum+(rem*rem*rem);
		n=n/10;
	}
	if(temp==sum)
		System.out.println(temp+ "is armstrong number");
	else
		System.out.println(temp+ "is not armStorng number");

}
```

```
            // TODO Auto-generated method stub

        }
```

output:

```
Enter a number:
153
153 is armstrong number
```

2. Write a Program to display all the Armstrong number between 10 to 1000

```
package jeevan;

public class Arm_one_to_tenthousand
{

  public static void main(String[] args)
   {

        int n,rem,sum,i;

      for(i=1;i<=10000;i++)
```

```
        {
          n=i;
          sum=0;
          while(n>0)
          {
                rem=n%10;
                sum=sum+(rem*rem*rem);
                n=n/10;
          }
            if(sum==i)
          System.out.println( i);
           }
       }
       }
```

output:

1

153

370

371

407

3. Write a program to find sum of the following series

a. Sum = x-1/x+2/x-3/x….n/x

```
package jeevan;
import java.util.Scanner;

public class sum_of_series {
	public static void main(String[] args)
	{
		Scanner sc =new Scanner(System.in);
		int i,n;
		float x,sum=0f;
		System.out.println("program to find sum of x-1/x+2/x-3/x….n/x ");
		System.out.println("enter x value:");
		x=sc.nextFloat();
		System.out.println("enter n value:");
		n=sc.nextInt();
		for(i=1;i<=n;i++)
		{
			if(i%2==0)
			{
				sum=sum+(float)i/x;
				}
				else
					sum=sum-(float)i/x;
			}
				System.out.println("sum of series:"+sum);
```

```
                }
        }
```

output:

```
program to find sum of x-1/x+2/x-3/x….n/x
enter x value:
2
enter n value:
6
sum of series:1.5
```

b. 1!+2!+3!+…..n!

```
package jeevan;
import java.util.Scanner;

public class Sum_of_factorial {
        public static void main(String[] args)
        {
                Scanner sc =new Scanner(System.in);
                int i,n,j;
                long sum=0,fact=1;
```

```
                    System.out.println("program to find sum of 1!+2!+3!+…..n! ");


                    System.out.println("enter n value:");
                    n=sc.nextInt();
                    for(i=1;i<=n;i++);
                    {
                        fact=1;


        for(j=1;j<=i;j++)
        {
          fact=fact*j;
          System.out.print(fact+"! + ");
        }
          sum=sum+fact;
          System.out.println(sum+"! + ");


}


                    System.out.println("\n sum of above series :"+sum);
          }
}
```

Output:

program to find sum of 1!+2!+3!+…..n!

enter n value:

5

1! + 2! + 6! + 24! + 120! + 720! + 720! +

sum of above series :720

4. Write a java program to check given number is perfect number or not

```
package jeevan;
import java.util.Scanner;

public class Perfect_number {
	public static void main(String[] args)
	{
		Scanner sc=new Scanner(System.in);
		int n,sum=0,i;
		System.out.println("enter a number :");
		n=sc.nextInt();
		for(i=1;i<n;i++)
		{
			if(n%i==0)
			sum=sum+i;
		}

if(sum==n)
{
	System.out.println(sum+"is a perfect nuber");
```

```
}
else
        System.out.println(sum+"isanot perfect number");
        }


}
```

Output:

enter a number :

6

6is a perfect nuber

5. Display all perfect numbers between 1 to 100000

```
package jeevan;

publicclass Perfect {
        publicstaticvoidmain(String[]args) {
                longnum, sum, i;
for (i = 1; i<=10000; i++)
    {
        sum=0;
        num=i;
        for(intj=1;j<num;j++)
        {
                if (num % j == 0)
                {
sum = sum + j;
                }
        }
        if (sum == i) {
System.out.println(i + " is a Perfect Number");
       }
    }
        }
```

```
}
```

Output

```
6 is a Perfect Number
28 is a Perfect Number
496 is a Perfect Number
8128 is a Perfect Number
```

6. Write a program to extract only character from a string. Eg: Af02284khff ->Afkhff

```
packagejeevan;
importjava.util.*;
publicclassExtract_Char {

	publicstaticvoidmain(String[] args) {
		String text, str="";
		charch;
		inti;
		Scanner key=newScanner(System.in);
		System.out.println("Enter String");
		text=key.next();
		for(i=0;i<text.length();i++)
		{
			ch = text.charAt(i);
			if(ch>='a'&ch<='z' | ch>='A'&ch<='Z')
				str=str + ch;
		}
		System.out.println("Extracted Charaters "+ str);
	}
}
```

Output

```
Enter String
agsf5343534sgvcvtdc
Extracted Charatersagsfsgvcvtdc
```

7. Write a program to find reverse of digits

```
packagejeevan;

publicclass Reverse {
```

```
	publicstaticvoidmain(String[] args) {
		longnum=123456789,sum=0,r;
		System.out.println("Given Number "+num);
		while (num>0)
		{
			r=num%10;
			sum=sum*10+r;
			num=num/10;
		}
		System.out.println("Reversed Number "+sum);
	}

}
```

Output :

```
Given Number 123456789
Reversed Number 987654321
```

8. Write a program to find power value of given base and exponent number

```
packagejeevan;
importjava.util.*;
publicclassExpont {

	publicstaticvoidmain(String[] args) {
		intpower=1, base, exponent;
		Scanner key=newScanner(System.in);
		System.out.print("Enter the base: ");
		base=key.nextInt();
		System.out.print("Enter the exponent: ");
		exponent=key.nextInt();
		intexpo=exponent;
		while(exponent!=0)
		{
			power=power*base;
			--exponent;
		}
		System.out.println(base +" to the power " + expo + " is: "+power);
	}

}
```

Output:

```
Enter the base: 1501
Enter the exponent: 15
```

1501 to the power 15 is: 97577141

9. Write a program to convert every first letter of string to capital letter

a. e.g: the Hindu -> The Hindu

```
packagejeevan;
importjava.util.*;
publicclassFist_Letter {
        publicstaticvoidmain(String []a)
        {
        String txt = "the Hindu";
        inth = 0;
        booleancapitalize = true;
        StringBuilder sb = new StringBuilder(txt);
        while (h<sb.length()) {
        if (sb.charAt(h) == ' ') {
        capitalize = true;
        }
        elseif (capitalize&& !Character.isWhitespace(sb.charAt(h)))
        {
        sb.setCharAt(h, Character.toUpperCase(sb.charAt(h)));
        capitalize = false;}
        h++;
        }
        System.out.println(sb.toString());
        }

}
```

Output: The Hindu

10. Write a program to count no. of digits present in a string

```
packagejeevan;
importjava.util.*;
publicclassCount_Digits {

        publicstaticvoidmain(String[] args) {
                longcount = 0, num;
                Scanner key=newScanner(System.in);
                System.out.println("Enter Number To Count Digits");
                num=key.nextLong();
        while (num != 0) {
        num /= 10;
            ++count;
           }

        System.out.println("Number of digits: " + count);
```

```
        }

}
```

Output:

```
Enter Number To Count Digits
142524252
Number of digits: 9
```