

W

ASSIGNMENT-1

✓
Date: 10/09/2014

Name: M. chandu naga sow. ya

Reg. No : 192372064

Course code: CSA0985

Course : programming in Java for web
Applications

Sum of natural Numbers

```
Public class sumofNaturalNumbers {  
    Public static void main (String [] args) {  
        int n=100;  
        int sum=0;  
        for (int i=1; i<=n; i++) {  
            sum+=i;  
        }  
        System.out.println ("The sum of " + n + " natural numbers  
        is :" + sum);  
    }  
}
```

output:- The sum of 100 natural numbers is : 5050.

2. check whether given number is prime or not.

```
Public class Primechecker {
```

```
    Public static void main (String [] args) {
```

```
        int n = 25;
```

```
        boolean isprime = true;
```

```
        if (n <= 1) {
```

```
            isprime = false;
```

```
        } else {
```

```
            for (int i=2; i*i <= n; i++) {
```

```
                if (n % i == 0) {
```

```
                    isprime = false;
```

```
                    break;
```

```
                }
```

```
            }
```

```
System.out.println(n+" is "+(isprime? "prime": "not prime"));
}
}
```

output:- 25 is not a prime number

3. Factorial of n number

```
class FactorialExample {
```

```
    public static void main(String args[]) {
```

```
        int i, fact=1;
```

```
        int number=5;
```

```
        for (i=1; i<=number; i++) {
```

```
            fact=fact*i;
```

```
}
```

```
        System.out.println("Factorial of "+number+" is:"+fact);
```

```
}
```

output:- Factorial of 5 is: 120

4. Reverse Number

```
public class ReverseNumber
```

```
{
```

```
    public static void main(String[] args)
```

```
{
```

```
        int number = 987654, reverse=0;
```

```
        while (number != 0)
```

```
{
```

```
            int remainder = number % 10;
```

```
            reverse = reverse * 10 + remainder;
```

```
number = number / 10;
}
System.out.println("The reverse of the given number
is: " + reverse);
}
output:- 456789
```

5. Armstrong Number :-

```
public class ArmstrongNumber {
    public static void main(String[] args) {
        int n = 371;
        int temp = n;
        int sum = 0;
        while (temp != 0) {
            int digit = temp % 10;
            sum = sum + digit * digit * digit;
            temp = temp / 10;
        }
        if (sum == n) {
            System.out.println(num + " is an Armstrong number");
        } else {
            System.out.println(num + " is not an Armstrong
number");
        }
    }
}
```

output:- 371 is an Armstrong number

6. Happy Number

```
public class HappyNumber {  
    public static int isHappyNumber(int n) {  
        int r=0, sum=0;  
        while (n>0) {  
            rem = n % 10;  
            sum = sum + (rem * rem);  
            n = n / 10;  
        }  
        return sum;  
    }  
  
    public static void main(String[] args) {  
        int n=82;  
        int result=n;  
        while (result!=1 && result!=4) {  
            result = isHappyNumber(result);  
        }  
        if (result==1)  
            System.out.println(n+" is a happy number");  
        else if (result==4)  
            System.out.println(n+" is not a happy number");  
    }  
}
```

output:- 82 is a happy number

Palindrome

```
class PalindromeExample {
    public static void main (String args[])
    {
        int r, sum=0,temp;
        int n=454;
        temp=n;
        while(n>0)
        {
            r=n%10;
            sum=(sum*10)+r;
            n=n/10;
        }
        if (temp==sum)
            System.out.println ("palindrome number");
        else
            System.out.println ("not palindrome");
    }
}
```

Output: Palindrome number

Sum of the Digits

```
public class SumofDigits {
    public static void main (String [] args)
    {
        int n=12345;
        int sum=0;
        while (n!=0)
        {
            sum=sum+n%10;
            n=n/10;
        }
        System.out.println ("sum of digits: "+sum);
    }
}
```

Output:- sum of digits: 15

9. Numbers is divisible by 5 and 7

```
Public class DivisibleBy5and7 {  
    Public static void main(String[] args) {  
        int n = 35;  
        if (n % 5 == 0 && n % 7 == 0) {  
            System.out.println(n + " is divisible by both 5 and  
                7.");  
        } else {  
            System.out.println(n + " is not divisible by  
                both 5 and 7.");  
        }  
    }  
}
```

Output: - 35 is divisible by both 5 and 7.

10. Perfect number

```
Public class PerfectNumber {  
    Public static void main(String[] args) {  
        int n = 28;  
        int sum = 0;  
        for (int i = 1; i <= n / 2; i++) {  
            if (n % i == 0) {  
                sum = sum + i;  
            }  
        }  
        if (sum == n) {  
            System.out.println(n + " is a perfect number.");  
        } else {  
            System.out.println(n + " is not a perfect number.");  
        }  
    }  
}
```

```
        System.out.println(n+" is not a perfect number.");
    }
}
```

output:- 28 is a perfect number

11. Fibonacci Series

```
public class FibonacciSeries {
    public static void main(String[] args) {
        int n=10;
        int firstTerm=0, secondTerm=1;
        System.out.println("Fibonacci series upto "+n+" terms:");
        for(int i=1; i<=n; ++i) {
            System.out.print(firstTerm+",");
            int nextTerm = firstTerm + secondTerm;
            firstTerm = secondTerm;
            secondTerm = nextTerm;
        }
    }
}
```

output:- Fibonacci series up to 10 terms:

0 1 1 2 3 5 8 13 21 34

12. GCD and LCM

```
public class LCMANDGCD {
    public static void main(String[] args) {
        int n1=72;
        int n2=120;
        int GCD=findGCD(n1,n2);
        int lcm=findLCM(n1,n2);
        gcd
    }
}
```

Binary
Public

```
System.out.println("GCD of " + n1 + " and " + n2 + " is:  
+ gcd);
```

```
System.out.println("LCM of " + n1 + " and " + n2 + " is:  
+ lcm);
```

```
8 Public static int findGCD(int a, int b) {  
    while (b != 0) {  
        int temp = b;  
        b = a % b;  
        a = temp;  
    }  
    return a;  
}
```

```
Public static int findLCM(int a, int b, int gcd) {  
    return (a * b) / gcd;  
}
```

Output: GCD of 72 and 120 is: 24
LCM of 72 and 120 is: 360

13. Decimal to Binary

```
Public class DecimalToBinary {  
    Public static void main(String[] args) {  
        int decimal = 42;  
        String binary = Integer.toBinaryString(decimal);  
        System.out.println("Binary representation of "+  
            decimal + " is : " + binary);  
    }  
}
```

Output:- Binary representation of 42 is: 101010

Binary to Decimal

```
public class BinaryToDecimal {  
    public static void main(String[] args) {  
        String binary = "101010";  
        int decimal = Integer.parseInt(binary, 2);  
        System.out.println("Decimal representation of"  
            + binary + " is: " + decimal);  
    }  
}
```

Output:- Decimal representation of 101010 is: 42.

15. Celsius to Fahrenheit

```
public class Temperature {  
    public static void main(String[] args) {  
        float Fahrenheit, celsius;  
        celsius = 13;  
        Fahrenheit = ((celsius * 9) / 5) + 32;  
        System.out.println("Temperature in Fahrenheit is: " +  
            Fahrenheit);  
    }  
}
```

Output:- Temperature in Fahrenheit is: 55.4

16. Sum of odd and Even numbers in n

```
class even {  
    public static void main(String args[]) {  
        int n,
```

```

import java.io.*;
public class GFG {
    public static void main (String [] args) {
        int n=8;
        int evenSum=0;
        int oddSum=0;
        for (int i=1; i<=2*n; i++) {
            if ((i+1)%2==0)
                evenSum+=i;
            else
                oddSum+=i;
        }
        System.out.println("sum of first "+n+" even numbers = "+evenSum);
        System.out.println("sum of odd "+n+" odd numbers = "+oddSum);
    }
}

```

output:- sum of first 8 even numbers = 72
 sum of first 8 odd numbers = 64

17. voting

```

class VotingAge {
    public static void main (String [] args) {
        int age;
        Scanner sc=new Scanner(System.in);
        System.out.print("enter your age");
        age=sc.nextInt();
        if (age >=18) {
            System.out.println("you are eligible for vote!");
        } else {
            System.out.println("you are not eligible for vote!");
        }
    }
}

```

3
3
3
output:- Enter:- 19 You are eligible for vote.

Vowels and consonants with upper case and Lower case

class vowel consonant {

 public static void main (String[] args) {

 char ch = 'j';

 if (ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' ||
 ch == 'u')

 System.out.println(ch + " is vowel");

 else

 System.out.println(ch + " is consonant");

 }

output:- i is vowel

19)

Square root and cubic root

```
import java.util.Scanner;  
public class Rootcalculator {  
    public static void main(String[] args) {  
        Scanner scanner = new  
        Scanner(System.in);  
        System.out.println("Enter a number:");  
        double number = scanner.nextDouble();  
        double squareRoot = Math.sqrt(number);  
        double cubicRoot = Math.cbrt(number);  
        System.out.println("Square root of " + number + " is: "  
                           + squareRoot);  
        System.out.println("Cubic root of " + number + " is: "  
                           + cubicRoot);  
    }  
}
```

Output:- 3

Square Root of number(3) is 1.73.
Cubic root of 3 is 1.44.