Q.1]

public class Ass1 {

public static void main(String[] args) {

System.out.println("Hello\nInfoway!");

}

}

Q.2]

public class Ass2 {

public static void main(String[] args)

{

System.out.println(74+36);

}

}

Q.3]

public class Ass3 {

public static void main(String[] args) {

System.out.println(50/3);

}

}

Q.4]

public class Ass4 {

public static void main(String[] args)

{

System.out.println(-5 + 8 \* 6);

System.out.println((55+9) % 9);

System.out.println(20 + -3\*5 / 8);

System.out.println(5 + 15 / 3 \* 2 - 8 % 3);

}

}

Q.5]

import java.util.Scanner;

public class Ass5 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input first number: ");

int num1 = in.nextInt();

System.out.print("Input second number: ");

int num2 = in.nextInt();

System.out.println(num1 + " x " + num2 + " = " + num1 \* num2);

}   
}

Q.6]

import java.util.Scanner;

public class Ass6 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input first number: ");

int num1 = in.nextInt();

System.out.print("Input second number: ");

int num2 = in.nextInt();

System.out.println(num1 + " + " + num2 + " = " + (num1 + num2));

System.out.println(num1 + " - " + num2 + " = " + (num1 - num2));

System.out.println(num1 + " x " + num2 + " = " + (num1 \* num2));

System.out.println(num1 + " / " + num2 + " = " + (num1 / num2));

System.out.println(num1 + " mod " + num2 + " = " + (num1 % num2));

}

}

Q.7]

import java.util.Scanner;

public class Ass7 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input a number: ");

int num1 = in.nextInt();

for (int i=0; i< 10; i++)

{

System.out.println(num1 + " x " + (i+1) + " = " + (num1 \* (i+1)));

}

}

}

Q.8]

public class Ass8 {

public static void main(String[] args) {

System.out.println(" J a v v a");

System.out.println(" J a a v v a a ");

System.out.println("J J aaaaa v v aaaaa");

System.out.println(" JJ a a v a a");

}

}

Q.9]

public class Ass9 {

public static void main(String[] arg) {

System.out.println((25.5 \* 3.5 - 3.5 \* 3.5) / (40.5 - 4.5));

}

}

Q.10]

public class Ass10 {

public static void main(String[] args) {

double pi = 4.0 \* (1 - (1.0/3) + (1.0/5) - (1.0/7) + (1.0/9) - (1.0/11));

System.out.println(pi);

}

}

Q.11]

public class Ass11 {

private static final double radius = 7.5;

public static void main(String[] args) {

double peri = 2 \* Math.PI \* radius;

double area = Math.PI \* radius \* radius;

System.out.println("Perimeter = " + peri);

System.out.println("Area = " + area);

}

}

Q.12]

import java.util.Scanner;

public class Ass12 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input first number: ");

int num1 = in.nextInt();

System.out.print("Input second number: ");

int num2 = in.nextInt();

System.out.print("Input third number: ");

int num3 = in.nextInt();

System.out.println("Average of five numbers is: " + (num1 + num2 + num3) / );

}

}

Q.13]

public class Ass13 {

public static void main(String[] strings) {

final double width = 5.6;

final double height = 8.5;

double perimeter = 2\*(height + width);

double area = width \* height;

System.out.printf("Perimeter is 2\*(%.1f + %.1f) = %.2f \n", height, width, perimeter); System.out.printf("Area is %.1f \* %.1f = %.2f \n", width, height, area);

}

}

Q,.14]

public class Ass14 {

public static void main(String[] args)

{ System.out.println("\* \* \* \* \* \* ==================================");

System.out.println(" \* \* \* \* \* ==================================");

System.out.println("\* \* \* \* \* \* ==================================");

System.out.println(" \* \* \* \* \* ==================================");

System.out.println("\* \* \* \* \* \* ==================================");

System.out.println(" \* \* \* \* \* ==================================");

System.out.println("\* \* \* \* \* \* ==================================");

System.out.println(" \* \* \* \* \* ==================================");

System.out.println("\* \* \* \* \* \* ==================================");

System.out.println("=============================================="); System.out.println("=============================================="); System.out.println("=============================================="); System.out.println("=============================================="); System.out.println("=============================================="); System.out.println("=============================================="); } }

Q.15]

public class Ass15 {

public static void main(String[] args) {

int a, b, temp; a = 15; b = 27;

System.out.println("Before swapping : a, b = "+a+", "+ + b);

temp = a; a = b; b = temp;

System.out.println("After swapping : a, b = "+a+", "+ + b);

}

}

Q.16]

public class Ass16 {

public static void main(String[] args) {

System.out.println (" +\"\"\"\"\"+ ");

System.out.println("[| o o |]");

System.out.println(" | ^ | ");

System.out.println(" | '-' | ");

System.out.println(" +-----+ "); }

}

Q.17]

import java.util.Scanner;

public class Ass17 {

public static void main(String[] args) {

long binary1, binary2;

int i = 0, remainder = 0;

int[] sum = new int[20];

Scanner in = new Scanner(System.in);

System.out.print("Input first binary number: ");

binary1 = in.nextLong();

System.out.print("Input second binary number: ");

binary2 = in.nextLong();

while (binary1 != 0 || binary2 != 0) {

sum[i++] = (int)((binary1 % 10 + binary2 % 10 + remainder) % 2);

remainder = (int)((binary1 % 10 + binary2 % 10 + remainder) / 2);

binary1 = binary1 / 10; binary2 = binary2 / 10;

}

if (remainder != 0) { sum[i++] = remainder;

}

--i;

System.out.print("Sum of two binary numbers: ");

while (i >= 0) { System.out.print(sum[i--]);

}

System.out.print("\n");

}

}

Q.18]

import java.util.Scanner;

public class Ass18 {

public static void main(String[] args) {

long binary1, binary2, multiply = 0;

int digit, factor = 1;

Scanner in = new Scanner(System.in);

System.out.print("Input the first binary number: ");

binary1 = in.nextLong();

System.out.print("Input the second binary number: ");

binary2 = in.nextLong();

while (binary2 != 0) { digit = (int)(binary2 % 10);

if (digit == 1) { binary1 = binary1 \* factor;

multiply = binaryproduct((int) binary1, (int) multiply);

}

else { binary1 = binary1 \* factor;

}

binary2 = binary2 / 10; factor = 10;

}

System.out.print("Product of two binary numbers: " + multiply+"\n"); }

static int binaryproduct(int binary1, int binary2) {

int i = 0, remainder = 0;

int[] sum = new int[20];

int binary\_prod\_result = 0;

while (binary1 != 0 || binary2 != 0) {

sum[i++] = (binary1 % 10 + binary2 % 10 + remainder) % 2;

remainder = (binary1 % 10 + binary2 % 10 + remainder) / 2;

binary1 = binary1 / 10; binary2 = binary2 / 10; }

if (remainder != 0) {

sum[i++] = remainder;

}

--i;

while (i >= 0) {

binary\_prod\_result = binary\_prod\_result \* 10 + sum[i--];

}

return binary\_prod\_result;

}

}

Q.19]

import java.util.Scanner;

public class Ass19 {

public static void main(String args[]) {

int dec\_num, quot, i=1, j;

int bin\_num[] = new int[100];

Scanner scan = new Scanner(System.in);

System.out.print("Input a Decimal Number : ");

dec\_num = scan.nextInt();

quot = dec\_num;

while(quot != 0) {

bin\_num[i++] = quot%2;

quot = quot/2;

}

System.out.print("Binary number is: ");

for(j=i-1; j>0; j--) {

System.out.print(bin\_num[j]);

}

System.out.print("\n");

}

}

Q.20]

import java.util.Scanner;

public classA Ass20 {

public static void main(String args[]) {

int dec\_num, rem;   
char hex[]={'0','1','2','3','4','5','6','7','8','9','A','B','C','D','E','F' };

Scanner in = new Scanner(System.in);

System.out.print("Input a decimal number: ");

dec\_num = in.nextInt();

while(dec\_num>0)

{

rem = dec\_num%16;

hexdec\_num = hex[rem] + hexdec\_num;

dec\_num = dec\_num/16;

}

System.out.print("Hexadecimal number is : "+hexdec\_num+"\n");

}

}

Q.21]

import java.util.Scanner;

public class Ass21 {

public static void main(String args[]) {

int dec\_num, rem, quot, i=1, j;

int oct\_num[] = new int[100];

Scanner scan = new Scanner(System.in);

System.out.print("Input a Decimal Number: ");

dec\_num = scan.nextInt();

quot = dec\_num;

while(quot != 0) { oct\_num[i++] = quot%8; quot = quot/8;

}

System.out.print("Octal number is: ");

for(j=i-1; j>0; j--)

{

System.out.print(oct\_num[j]);

}

System.out.print("\n");

}

}

Q.22]

import java.util.Scanner;

public class Ass22 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

long binaryNumber, decimalNumber = 0, j = 1, remainder;

System.out.print("Input a binary number: ");

binaryNumber = sc.nextLong();

while (binaryNumber != 0) {

remainder = binaryNumber % 10;

decimalNumber = decimalNumber + remainder \* j;

j = j \* 2;

binaryNumber = binaryNumber / 10; }

System.out.println("Decimal Number: " + decimalNumber);

}

}

Q.23]

import java.util.Scanner;

public class Ass23 {

public static void main(String[] args) {

int[] hex = new int[1000];

int i = 1, j = 0, rem, dec = 0, bin;

Scanner in = new Scanner(System.in);

System.out.print("Input a Binary Number: ");

bin = in.nextInt();

while (bin > 0)

{

rem = bin % 2;

dec = dec + rem \* i;

i = i \* 2;

bin = bin / 10;

}

i = 0;

while (dec != 0) {

hex[i] = dec % 16; dec = dec / 16;

i++;

}

System.out.print("HexaDecimal value: ");

for (j = i - 1; j >= 0; j--)

{

if (hex[j] > 9)

{ System.out.print((char)(hex[j] + 55)+"\n");

}

else { System.out.print(hex[j]+"\n");

}

}

}

}

Q.24]

import java.util.\*;

public class Ass24 {

public static void main(String[] args) {

int binnum, binnum1,rem, decnum=0, quot, i=1, j;

int octnum[] = new int[100];

Scanner scan = new Scanner(System.in);

System.out.print("Input a Binary Number : ");

binnum = scan.nextInt();

binnum1=binnum;

while(binnum > 0) {

rem = binnum % 10;

decnum = decnum + rem\*i;

i = i\*2; binnum = binnum/10;

}

i=1; quot = decnum;

while(quot > 0) { octnum[i++] = quot % 8;

quot = quot / 8;

}

System.out.print("Equivalent Octal Value of " +binnum1+ " is :");

for(j=i-1; j>0; j--)

{

System.out.print(octnum[j]);

}

System.out.print("\n");

}

}

Q.25]

import java.util.Scanner;

public class Ass25 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

long octal\_num, decimal\_num = 0;

int i = 0;

System.out.print("Input any octal number: ");

octal\_num = in.nextLong();

while (octal\_num != 0) {

decimal\_num = (long)(decimal\_num + (octal\_num % 10) \* Math.pow(8, i++));

octal\_num = octal\_num / 10;

}

System.out.print("Equivalent decimal number: " + decimal\_num+"\n");

}

}

Q.26]

import java.util.Scanner;

public class Ass26 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

int[] octal\_numvalues = {0, 1, 10, 11, 100, 101, 110, 111};

long octal\_num, tempoctal\_num, binary\_num, place;

int rem; System.out.print("Input any octal number: ");

octal\_num = in.nextLong();

tempoctal\_num = octal\_num;

binary\_num = 0;

place = 1;

while (tempoctal\_num != 0) { rem = (int)(tempoctal\_num % 10);

binary\_num = octal\_numvalues[rem] \* place + binary\_num;

tempoctal\_num /= 10; place \*= 1000;

}

System.out.print("Equivalent binary number: " + binary\_num+"\n");

}

}

Q.27]

import java.util.Scanner;

public class Ass27 {

public static void main(String args[]) {

String octal\_num, hex\_num;

int decnum;

Scanner in = new Scanner(System.in);

System.out.print("Input a octal number : ");

octal\_num = in.nextLine();

decnum = Integer.parseInt(octal\_num, 8);

hex\_num = Integer.toHexString(decnum);

System.out.print("Equivalent hexadecimal number: "+ hex\_num+"\n");

}

}

Q.28]

import java.util.Scanner

public class As28 {

public static int hex\_to\_decimal(String s) {

String digits = "0123456789ABCDEF";

s = s.toUpperCase();

int val = 0;

for (int i = 0; i < s.length();

i++)

{

char c = s.charAt(i);

int d = digits.indexOf(c);

val = 16\*val + d;

}

return val;

}

public static void main(String args[]) {

tring hexdec\_num;

int dec\_num;

Scanner scan = new Scanner(System.in);

System.out.print("Input a hexadecimal number: ");

hexdec\_num = scan.nextLine();

dec\_num = hex\_to\_decimal(hexdec\_num);

System.out.print("Equivalent decimal number is: " + dec\_num+"\n");

}

}

Q.29]

import java.util.Scanner;

public class Ass29 { public static int hex\_to\_decimal(String s) {

String digits = "0123456789ABCDEF";

s = s.toUpperCase()

; int val = 0;

for (int i = 0; i < s.length(); i++) {

char c = s.charAt(i);

int d = digits.indexOf(c);

val = 16\*val + d; }

return val; }

public static void main(String args[]) {

String hexdec\_num; int dec\_num, i=1, j;

int bin\_num[] = new int[100];

Scanner scan = new Scanner(System.in);

System.out.print("Enter Hexadecimal Number : ");

hexdec\_num = scan.nextLine();

dec\_num = hex\_to\_decimal(hexdec\_num);

while(dec\_num != 0)

{

bin\_num[i++] = dec\_num%2;

dec\_num = dec\_num/2;

}

System.out.print("Equivalent Binary Number is: ");

for(j=i-1; j>0; j--) {

System.out.print(bin\_num[j]);

}

System.out.print("\n")

;

}

}

Q.30]

import java.util.Scanner;

public class Ass30 {

public static int hex\_to\_decimal(String s) {

String digits = "0123456789ABCDEF";

s = s.toUpperCase();

int val = 0;

for (int i = 0; i < s.length();

i++)

{

char c = s.charAt(i);

int d = digits.indexOf(c);

val = 16\*val + d;

}

return val;

}

public static void main(String args[]) {

String hexdec\_num;

int dec\_num, i=1, j;

int octal\_num[] = new int[100];

Scanner in = new Scanner(System.in);

System.out.print("Input a hexadecimal number: ");

hexdec\_num = in.nextLine();

{

octal\_num[i++] = dec\_num%8; dec\_num = dec\_num/8;

}

System.out.print("Equivalent of octal number is: ");

for(j=i-1; j>0; j--) {

System.out.print(octal\_num[j]);

}

System.out.print("\n");

}

}

Q.31]

public class Aass31 {

public static void main(String[] args) {

System.out.println("\nJava Version: "+System.getProperty("java.version"));

System.out.println("Java Runtime Version: "+System.getProperty("java.runtime.version")); System.out.println("Java Home: "+System.getProperty("java.home"));

System.out.println("Java Vendor: "+System.getProperty("java.vendor"));

System.out.println("Java Vendor URL: "+System.getProperty("java.vendor.url")); System.out.println("Java Class Path: "+System.getProperty("java.class.path")+"\n");

}

}

Q.32]

import java.util.Scanner;

public class Ass32 {

public static void main( String args[] )

{

Scanner input = new Scanner(System.in);

int number1;

int number2;

System.out.print( "Input first integer: " );

number1 = input.nextInt();

System.out.print( "Input second integer: " );

number2 = input.nextInt();

if ( number1 == number2 )

System.out.printf( "%d == %d\n", number1, number2 );

if ( number1 != number2 )

System.out.printf( "%d != %d\n", number1, number2 );

if ( number1 < number2 )

System.out.printf( "%d < %d\n", number1, number2 );

if ( number1 > number2 )

System.out.printf( "%d > %d\n", number1, number2 );

if ( number1 <= number2 )

System.out.printf( "%d <= %d\n", number1, number2 );

if ( number1 >= number2 )

System.out.printf( "%d >= %d\n", number1, number2 );

}

}

Q.33]

import java.util.Scanner;

public class Ass33 {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

System.out.print("Input an integer: ");

long n = input.nextLong();

System.out.println("The sum of the digits is: " + sumDigits(n));

}

public static int sumDigits(long n)

{

int sum = 0; while (n != 0)

{

sum += n % 10; n /= 10;

}

return sum;

}

}

Q.34]

import java.util.Scanner;

public class Ass34 {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

System.out.print("Input the length of a side of the hexagon: ");

double s = input.nextDouble();

System.out.print("The area of the hexagon is: " + hexagonArea(s)+"\n");

}

public static double hexagonArea(double s) { return (6\*(s\*s))/(4\*Math.tan(Math.PI/6));

}

}

Q.35]

import java.util.Scanner;

public class Ass35 {

public static void main(String[] args)

{

Scanner input = new Scanner(System.in);

System.out.print("Input the number of sides on the polygon: ");

int ns = input.nextInt();

System.out.print("Input the length of one of the sides: ");

double side = input.nextDouble();

System.out.print("The area is: " + polygonArea(ns, side)+"\n");

}

public static double polygonArea(int ns, double side)

{

return (ns \* (side \* side)) / (4.0 \* Math.tan((Math.PI / ns)));

}

}

Q36]

import java.util.Scanner;

public class Ass36 {

public static void main(String[] args) {

Scanner input = new Scanner(System.in);

System.out.print("Input the latitude of coordinate 1: ");

double lat1 = input.nextDouble();

System.out.print("Input the longitude of coordinate 1: ");

double lon1 = input.nextDouble();

System.out.print("Input the latitude of coordinate 2: ");

double lat2 = input.nextDouble();

System.out.print("Input the longitude of coordinate 2: ");

double lon2 = input.nextDouble();

System.out.print("The distance between those points is: " + distance\_Between\_LatLong(lat1, lon1, lat2, lon2) + " km\n");

}

public static double distance\_Between\_LatLong(double lat1, double lon1, double lat2, double lon2) { lat1 = Math.toRadians(lat1); lon1 = Math.toRadians(lon1);

lat2 = Math.toRadians(lat2);

lon2 = Math.toRadians(lon2); double earthRadius = 6371.01;

Math.acos(Math.sin(lat1)\*Math.sin(lat2) + Math.cos(lat1)\*Math.cos(lat2)\*Math.cos(lon1 - lon2));

}

}

Q.37]

import java.util.Scanner;

public class Ass37 {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

System.out.print("Input a string: ");

char[] letters = scanner.nextLine().toCharArray();

System.out.print("Reverse string: ");

for (int i = letters.length - 1; i >= 0; i--) {

System.out.print(letters[i]);

}

System.out.print("\n");

}

}

Q.38]

import java.util.Scanner;

public class Ass38 {

public static void main(String[] args) {

String test = "Aa kiu, I swd skieo 236587. GH kiu: sieo?? 25.33";

count(test); }

public static void count(String x)

{

char[] ch = x.toCharArray();

int letter = 0;

int space = 0;

int num = 0;

int other = 0;

for(int i = 0;

i < x.length();

i++)

{

if(Character.isLetter(ch[i])){ letter ++ ;

}

else if(Character.isDigit(ch[i])){

num ++ ;

}

else if(Character.isSpaceChar(ch[i])){ space ++ ;

}

else{ other ++;

}

}

System.out.println("The string is : Aa kiu, I swd skieo 236587. GH kiu: sieo?? 25.33"); System.out.println("letter: " + letter); System.out.println("space: " + space); System.out.println("number: " + num); System.out.println("other: " + other);

}

}

Q.39]

import java.util.Scanner;

public class Ass39 {

public static void main(String[] args) {

int amount = 0;

for(int i = 1; i <= 4; i++)

{

for(int j = 1;

j <= 4; j++)

{

for(int k = 1; k <= 4; k++){

if(k != i && k != j && i != j){

amount++;

System.out.println(i + "" + j + "" + k);

} } } }

System.out.println("Total number of the three-digit-number is " + amount);

}

}

Q,.40]

import java.nio.charset.Charset;

public class Ass40 {

public static void main(String[] args) {

System.out.println("List of available character sets: ");

for (String str : Charset.availableCharsets().keySet()) {

System.out.println(str);

}

} }

Q.41]

public class Ass41 {

public static void main(String[] String) {

int chr = 'Z';

System.out.println("The ASCII value of Z is :"+chr);

}

}

Q.43]

public class Ass43 {

public static void main(String[] args) {

System.out.println("\nTwinkle, twinkle, little star, \n\tHow I wonder what you are! \n\t\tUp above the world so high, \n\t\tLike a diamond in the sky. \nTwinkle, twinkle, little star, \n\tHow I wonder what you are!\n\n");

}

}

Q.45]

import java.util.Scanner;

import java.io.File;

public class Ass45 {

public static void main(String[] args) {

System.out.println("/home/students/abc.txt : " + new File("abc.txt").length() + " bytes"); System.out.println("/home/students/test.txt : " + new File("test.txt").length() + " bytes");

}

}

Q.44]

import java.util.Scanner;

public class Ass44 {

public static void main(String[] args) {

int n; char s1, s2, s3;

Scanner in = new Scanner(System.in);

System.out.print("Input number: ");

n = in .nextInt();

System.out.printf("%d + %d%d + %d%d%d\n", n, n, n, n, n, n);

}

}

Q.45]

import java.util.Scanner;

import java.io.File;

public class Ass45 {

public static void main(String[] args) {

System.out.println("/home/students/abc.txt : " + new File("abc.txt").length() + " bytes"); System.out.println("/home/students/test.txt : " + new File("test.txt").length() + " bytes");

}

}

Q.46]

public class Ass46 {

public static void main(String[] args){

System.out.format("\nCurrent Date time: %tc%n\n", System.currentTimeMillis());

}

}

Q.47]

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.TimeZone;

public class Ass47 {

public static void main(String args[]) {

SimpleDateFormat cdt = new SimpleDateFormat("yyyy/MM/dd HH:mm:ss.SSS"); cdt.setCalendar(Calendar.getInstance(TimeZone.getTimeZone("GMT")) );

System.out.println("\nNow: "+cdt.format(System.currentTimeMillis()));

}

}

Q.48]

import java.util.\*;

public class Ass48 {

public static void main(String[] args){

for (int i = 1; i < 100; i++) { if (i % 2 != 0)

{

System.out.println(i);

}

}

}

}

Q.49]

import java.util.\*;

public class Ass49 {

public static void main(String[] args){

Scanner in = new Scanner(System.in);

System.out.print("Input a number: ");

int n = in.nextInt(); if (n % 2 == 0)

{ System.out.println(1);

}

Else

{

System.out.println(0);

}

}

}

Q.50]

public class Ass50 {

public static void main(String args[]) {

System.out.println("\nDivided by 3: ");

for (int i=1; i<100; i++) {

if (i%3==0)

System.out.print(i +", ");

}

System.out.println("\n\nDivided by 5: ");

for (int i=1; i<100; i++) {

if (i%5==0) System.out.print(i +", ");

}

System.out.println("\n\nDivided by 3 & 5: ");

for (int i=1; i<100; i++) {

if (i%3==0 && i%5==0) System.out.print(i +", ");

}

System.out.println("\n");

}

}

Q.51]

import java.util.\*;

public class Ass51 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input a number(string): ");

String str1 = in.nextLine(); int result = Integer.parseInt(str1);

System.out.printf("The integer value is: %d",result); System.out.printf("\n");

}

}

Q.52]

import java.util.\*;

public class Ass52 {

public static void main(String[] args)

{ Scanner in = new Scanner(System.in);

System.out.print("Input the first number : ");

int x = in.nextInt();

System.out.print("Input the second number: ");

int y = in.nextInt();

System.out.print("Input the third number : ");

int z = in.nextInt();

System.out.print("The result is: "+sumoftwo(x, y, z));

System.out.print("\n");

}

public static boolean sumoftwo(int p, int q, int r) {

return ((p + q) == r || (q + r) == p || (r + p) == q);

}

}

Q.53]

import java.util.\*;

public class Ass53 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input the first number : ");

int x = in.nextInt();

System.out.print("Input the second number: ");

int y = in.nextInt();

System.out.print("Input the third number : ");

int z = in.nextInt(); System.out.print("The result is: "+test(x, y, z,true)); System.out.print("\n"); }

public static boolean test(int p, int q, int r, boolean xyz) {

if(xyz) return (r > q);

return (q > p && r > q);

}

}

Q.54]

import java.util.\*;

public class ass54 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input the first number : ");

int x = in.nextInt();

System.out.print("Input the second number: ");

int y = in.nextInt();

System.out.print("Input the third number : ");

int z = in.nextInt();

System.out.print("The result is: "+test\_last\_digit(x, y, z,true));

System.out.print("\n");

}

public static boolean test\_last\_digit(int p, int q, int r, boolean xyz)

{

return (p % 10 == q % 10) || (p % 10 == r % 10) || (q % 10 == r % 10); } }

Q.55]

import java.util.\*;

public class Ass55 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input seconds: ");

int seconds = in.nextInt();

int p1 = seconds % 60;

int p2 = seconds / 60;

int p3 = p2 % 60; p2 = p2 / 60;

System.out.print( p2 + ":" + p3 + ":" + p1);

System.out.print("\n");

}

}

Q.56]

import java.util.\*;

public class Ass56 {

public static void main(String[] args){

int x = 5; int y = 20; int p = 3;

System.out.println(result(x,y,p));

}

public static int result(int x, int y, int p) {

if (x%p == 0) return( y/p - x/p + 1);

return(y/p - x/p);

}

}

Q.57]

import java.util.\*;

public class Ass57 {

public static void main(String[] args){

Scanner in = new Scanner(System.in);

System.out.print("Input an integer: ");

int x = in.nextInt(); System.out.println(result(x));

}

public static int result(int num)

{

int ctr = 0;

for(int i=1; i<=(int)Math.sqrt(num); i++)

{

if(num%i==0 && i\*i!=num) { ctr+=2;

}

else if (i\*i==num) { ctr++;

}

}

return ctr;

}

}

Q.59]

import java.util.\*;

public class Ass59 {

public static void main(String[] args){

Scanner in = new Scanner(System.in);

System.out.print("Input a String: ");

String line = in.nextLine();

line = line.toLowerCase();

System.out.println(line);

}

}

Q.60]

import java.util.\*;

public class Ass60 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input a Sentence: ");

String line = in.nextLine(); String[] words = line.split("[ ]+");

System.out.println("Penultimate word: "+words[words.length - 2]);

}

}

Q.61]

import java.util.\*;

public class Ass61 {

public static void main(String[] args){

Scanner in = new Scanner(System.in);

System.out.print("\nInput a word: ");

String word = in.nextLine(); word = word.trim(); String result = "";

char[] ch=word.toCharArray();

for (int i = ch.length - 1; i >= 0; i--)

{ result += ch[i];

}

System.out.println("Reverse word: "+result.trim());

}

}

Q.62]

import java.util.\*;

public class Ass62 {

public static void main(String[] args)

{

Scanner in = new Scanner(System.in);

System.out.print("Input the first number : ");

int x = in.nextInt();

System.out.print("Input the second number: ");

int y = in.nextInt();

System.out.print("Input the third number : ");

int z = in.nextInt();

System.out.println((Math.abs(x - y) >= 20 || Math.abs(y - z) >= 20 || Math.abs(z - x) >= 20));

}

}

Q.63]

import java.util.\*;

public class Ass63 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input the first number : ");

int a = in.nextInt();

System.out.print("Input the second number: ");

int b = in.nextInt();

System.out.println("Result: "+result(a, b));

}

public static int result(int x, int y) {

if(x == y) return 0;

if(x % 6 == y % 6) return (x < y) ? x : y; return (x > y) ? x : y;

}

}

Q.64]

import java.util.\*;

public class Ass64 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input the first number : ");

int a = in.nextInt();

System.out.print("Input the second number: ");

int b = in.nextInt();

System.out.println("Result: "+common\_digit(a, b));

}

public static boolean common\_digit(int p, int q) { if (p75) return false;

int x = p % 10; int y = q % 10; p /= 10;

q /= 10; return (p == q || p == y || x == q || x == y);

}

}

Q.65]

import java.util.\*;

public class Ass65 {

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.print("Input the first number : ");

int a = in.nextInt();

System.out.print("Input the second number: ");

int b = in.nextInt();

int divided = a / b;

int result = a - (divided \* b);

System.out.println(result);

}

}

Q.66]

import java.util.\*;

public class Ass66 {

public static void main(String[] args) {

int sum = 1;

int ctr = 0;

int n = 0;

while (ctr < 100)

{

n++;

if (n % 2 != 0)

{

// check if the number is even

if (is\_Prime(n)) { sum += n;

} }

ctr++;

}

System.out.println("\nSum of the prime numbers till 100: "+sum);

}

public static boolean is\_Prime(int n) { for (int i = 3; i \* i <= n; i+= 2)

{

if (n % i == 0)

{

return false;

}

}

return true;

}

}

Q.67]

import java.lang.\*;

public class Ass67 {

public static void main(String[] args) {

String main\_string = "Python 3.0";

String word = "Tutorial";

System.out.println(main\_string.substring(0, 7) + word + main\_string.substring(6));

}

}

Q.68]

import java.lang.\*;

public class Ass68 {

public static void main(String[] args) {

String main\_string = "Python 3.0";

String last\_three\_chars = main\_string.substring(main\_string.length() - 3); System.out.println(last\_three\_chars + last\_three\_chars + last\_three\_chars + last\_three\_chars);

}

}

Q.69]

import java.lang.\*;

public class Ass69 {

public static void main(String[] args) {

String main\_string = "Python";

System.out.println(main\_string.substring(0, main\_string.length()/2));

}

}

Q.70]

import java.lang.\*;

public class Ass70 {

public static void main(String[] args) {

String str1 = "Python";

String str2 = "Tutorial";

if(str1.length() >= str2.length())

System.out.println( str2+str1+str2);

else System.out.println(str1+str2+str1);

}

}

Q.71]

import java.lang.\*;

public class Ass71 {

public static void main(String[] args) {

String str1 = "Python";

String str2 = "Tutorial";

System.out.println(str1.substring(1) + str2.substring(1));

}

}

Q.72]

import java.lang.\*;

public class Ass72 {

public static void main(String[] args) {

String str1 = ""; int len = str1.length();

if(len >= 3) System.out.println( str1.substring(0, 3));

else if(len == 1) System.out.println( (str1.charAt(0)+"##"));

else System.out.println("###");

}

}

Q.73]

import java.lang.\*;

public class Ass73 {

public static void main(String[] args) {

String str1 = "Python";

String str2 = "";

int length2 = str2.length();

String result = "";

result += (str1.length() >= 1) ? str1.charAt(0) : '#'; result += (length2 >= 1) ? str2.charAt(length2-1) : '#'; System.out.println(result);

}

}

Q.74]

import java.lang.\*;

public class Ass74 {

public static void main(String[] args) {

int[] num\_array = {10, -20, 0, 30, 40, 60, 10};

System.out.println((num\_array[0] == 10 || num\_array[num\_array.length-1] == 10));

}

}

Q.75]

import java.lang.\*;

public class Ass75 {

public static void main(String[] args) {

int[] num\_array = {50, -20, 0, 30, 40, 60, 10};

System.out.println (num\_array.length >= 2 && num\_array[0] == num\_array[num\_array.length-1]);

}

}

Q.76]

public class Ass76 { public static void main(String[] args) {

int[] num\_array1 = {50, -20, 0, 30, 40, 60, 12};

int[] num\_array2 = {45, 20, 10, 20, 30, 50, 11};

System.out.println(num\_array1[0] == num\_array2[0] || num\_array1[num\_array1.length-1] == num\_array2[num\_array2.length-1]);

}

}

Q.77]

import java.util.Arrays;

public class Ass77 {

public static void main(String[] args) {

int[] array1 = {50, -20, 0}; int[] array2 = {5, -50, 10};

System.out.println("Array1:

"+Arrays.toString(array1));

System.out.println("Array2: "+Arrays.toString(array2));

int[] array\_new = {array1[0], array2[2]};

System.out.println("New Array: "+Arrays.toString(array\_new));

}

}

Q.78]

import java.util.Arrays;

public class Ass78 {

public static void main(String[] args) {

int[] array\_nums = {5, 7};

System.out.println("Original Array: "+Arrays.toString(array\_nums));

if(array\_nums[0] == 4 || array\_nums[0] == 7)

System.out.println("True");

else System.out.println(array\_nums[1] == 4 || array\_nums[1] == 7);

}

}

Q.79]

import java.util.Arrays;

public class Ass79 {

public static void main(String[] args) {

int[] array\_nums = {20, 30, 40};

System.out.println("Original Array: "+Arrays.toString(array\_nums));

int[] new\_array\_nums = {array\_nums[1], array\_nums[2], array\_nums[0]};

System.out.println("Rotated Array: "+Arrays.toString(new\_array\_nums));

}

}

Q.80]

import java.util.Arrays;

public class Ass80 {

public static void main(String[] args) {

int[] array\_nums = {20, 30, 40};

System.out.println("Original Array: "+Arrays.toString(array\_nums));

int max\_val = array\_nums[0]; if(array\_nums[2] >= max\_val) max\_val = array\_nums[2]; System.out.println("Larger value between first and last element: "+max\_val);

}

}

Q.81]

import java.util.Arrays;

public class Ass81 {

public static void main(String[] args) {

int[] array\_nums = {20, 30, 40};

System.out.println("Original Array: "+Arrays.toString(array\_nums));

int x = array\_nums[0]; array\_nums[0] = array\_nums[array\_nums.length-1]; array\_nums[array\_nums.length-1] = x;

System.out.println("New array after swaping the first and last elements: "+Arrays.toString(array\_nums));

}

}

Q.82]

import java.util.Arrays;

public class Ass82 {

public static void main(String[] args) { int[] array\_nums = {20, 30, 40, 50, 67}; System.out.println("Original Array: "+Arrays.toString(array\_nums));

int max\_val = array\_nums[0];

if(max\_val <= array\_nums[array\_nums.length-1]) max\_val = array\_nums[array\_nums.length-1]; if(max\_val <= array\_nums[array\_nums.length/2]) max\_val = array\_nums[array\_nums.length/2]; System.out.println("Largest element between first, last, and middle values: "+max\_val);

}

}

Q.83]

import java.util.\*;

public class Ass83 {

public static void main(String[] args){

String result = ""; int[] left\_array = {1, 3, -5, 4}; int[] right\_array = {1, 4, -5, -2}; System.out.println("\nArray1: "+Arrays.toString(left\_array)); System.out.println("\nArray2: "+Arrays.toString(right\_array)); for (int i = 0; i < left\_array.length; i++) { int num1 = left\_array[i];

int num2 = right\_array[i]; result += Integer.toString(num1 \* num2) + " ";

}

System.out.println("\nResult: "+result);

}

}

Q.84.]

import java.util.\*;

import java.io.\*;

public class Ass84

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

String string1 = "Python";

int slength = 3;

if (slength > string1.length()) { slength = string1.length();

}

String subpart = string1.substring(string1.length()-3);

System.out.println(subpart + string1 + subpart);

} }

Q.85]

import java.util.\*;

import java.io.\*;

public class Ass85 {

public static void main(String[] args) {

String string1 = "Hello how are you?";

System.out.println(string1.startsWith("Hello"));

} }

Q.86]

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

int ctr = 0; Scanner in = new Scanner(System.in);

int n = in.nextInt();

while (n != 1) {

System.out.println(n);

if (n % 2 == 0) {

n = n / 2; ctr += 1;

}

else { n = (3 \* n + 1) / 2; ctr += 1;

}

}

System.out.println(ctr);

in.close();

} }

Q.87]

import java.io.\*;

public class Main {

public static void main(String[] args) {

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

Try

{

int sum = 0; String str = br.readLine();

char[] numStr = str.toCharArray();

for (int i = 0; i < numStr.length; i ++)

{

sum += numStr[i] - '0';

}

System.out.println("Original Number: "+str);

print\_number(sum);

}

catch (IOException e) { e.printStackTrace();

} }

public static void print\_number(int n)

{

int x;

int y;

int z;

String[] number = {"zero","one","two","three","four","five","six","seven","eight","nine" }; System.out.println("Sum of the digits of the said number: "+n); if (n < 10) { System.out.println(number[n]); }

else if (n < 100) { x = n / 10; y = n - x \*10;

System.out.println("In English: "+number[x] + " " + number[y]);

}

else { x = n / 100; y = (n - x \* 100) / 10; z = n - x \* 100 - y \* 10;

System.out.println("In English: "+number[x] + " " + number[y] + " " + number[z]);

}

} }

Q.88]

import java.lang.\*; public class Exercise88 { public static void main(String[] args) { System.out.println("\nCurrent system environment:");

System.out.println(System.getenv());

System.out.println("\n\nCurrent system properties:");

System.out.println(System.getProperties());

}

}

Q.89]

import java.lang.\*;

public class Ass89 {

public static void main(String[] args) {

System.out.println("System security interface:");

System.out.println(System.getSecurityManager());

}

}

Q.90]

import java.lang.\*;

public class Ass90 {

public static void main(String[] args) {

System.out.println("\nEnvironment variable PATH: ");

System.out.println(System.getenv("PATH"));

System.out.println("\nEnvironment variable TEMP: ");

System.out.println(System.getenv("TEMP"));

System.out.println("\nEnvironment variable USERNAME: "); System.out.println(System.getenv("USERNAME"));

}

Q.91]

import java.lang.\*;

public class Ass91 {

public static void main(String[] args) {

long startTime = System.nanoTime();

int i;

System.out.println ("The first 10 natural numbers are:\n");

for (i=1;i<=10;i++) {

System.out.println (i);

}

long estimatedTime = System.nanoTime() - startTime;

System.out.println("Estimated time (in nanoseconds) to get the first 10 natural numbers: "+estimatedTime);

}

}

Q.92]

import java.util.\*;

public class Ass92 {

public static void main(String[] args) {

int[] nums = {5, 7, 2, 4, 9};

int ctr\_even = 0, ctr\_odd = 0;

System.out.println("Original Array: "+Arrays.toString(nums));

for(int i = 0; i < nums.length; i++) {

if(nums[i] % 2 == 0) {

ctr\_even++;

}

else ctr\_odd++;

}

System.out.printf("\nNumber of even elements in the array: %d",ctr\_even); System.out.printf("\nNumber of odd elements in the array: %d",ctr\_odd); System.out.printf("\n");

}

}

Q.93]

import java.util.\*;

public class Ass93 {

public static void main(String[] args) {

int[] nums = {10, 10, 2, 4, 9};

int[] nums = {10, 10, 2, 4, 20, 20};

int ctr\_even = 0, ctr\_odd = 0;

System.out.println("Original Array: "+Arrays.toString(nums));

boolean found1010 = false;

boolean found2020 = false;

for(int i = 0; i < nums.length - 1;

i++) {

if(nums[i] == 10 && nums[i+1] == 10) found1010 = true;

if(nums[i] == 20 && nums[i+1] == 20) found2020 = true;

}

System.out.printf( String.valueOf(found1010 != found2020)); System.out.printf("\n");

}

}

Q.94]

import java.util.\*;

import java.io.\*;

public class Ass94 {

public static void main(String[] args) {

int[] array\_nums = {1, 7, 8, 5, 7, 13, 0, 2, 4, 9};

int i = 0;

System.out.println("Original Array: "+Arrays.toString(array\_nums));

while(i < array\_nums.length && array\_nums[i] % 2 == 0) i++;

for(int j = i + 1; j < array\_nums.length; j++) {

if(array\_nums[j] % 2 != 0) { int temp = array\_nums[i]; array\_nums[i] = array\_nums[j]; array\_nums[j] = temp; i++;

}

}

System.out.println("New Array: "+Arrays.toString(array\_nums));

}

}

Q.95]

import java.util.\*;

import java.io.\*;

public class Ass95 {

public static void main(String[] args) {

int n= 5;

String[] arr\_string = new String[n];

for(int i = 0; i < n; i++) arr\_string[i] = String.valueOf(i);

System.out.println("New Array: "+Arrays.toString(arr\_string));

}

}

Q.96]

import java.util.\*;

import java.io.\*;

public class Ass96 {

public static void main(String[] args) {

int[] array\_nums = {10, 70, 80, 50, 20, 13, 50};

boolean testd = false;

int result=0; int x = 10;

int y = 20;

for(int i = 0;

i < array\_nums.length;

i++) {

if(array\_nums[i] == x) testd = true;

if(testd && array\_nums[i] == y) {

System.out.printf( String.valueOf(true));

result = 1 ;

}

}

if (result==0)

{

System.out.printf( String.valueOf(false));

}

System.out.printf("\n");

}

}

Q.97]

import java.util.\*;

import java.io.\*;

public class Ass97 {

public static void main(String[] args) {

int[] array\_nums = {10, 20, 10, 50, 20, 13, 50};

boolean testd = false; int result=0; int x = 10;

for(int i = 0; i < array\_nums.length - 1; i++) { i

f(array\_nums[i] == x && array\_nums[i+1] == x) {

System.out.printf( String.valueOf(true)); result = 1 ;

}

if(i <= array\_nums.length - 3 && array\_nums[i] == x && array\_nums[i+2] == x) {

System.out.printf( String.valueOf(true));

result = 1 ;

}

}

if (result==0) {

System.out.printf( String.valueOf(false));

}

System.out.printf("\n");

}

}

Q.98]

import java.util.\*;

import java.io.\*;

public class Ass98 {

public static void main(String[] args) {

int[] array\_nums = {10, 20, 10, 20, 40, 13, 20};

int count = 0, result =0;

if(array\_nums.length >= 1 && array\_nums[0] == 20) count++;

for(int i = 1;

i < array\_nums.length; i++) {

if(array\_nums[i - 1] == 20 && array\_nums[i] == 20) {

System.out.printf( String.valueOf(false));

result = 1;

}

if(array\_nums[i] == 20) count++;

}

if (result==0) {

System.out.printf( String.valueOf(count == 3));

}

System.out.printf("\n");

}

Q99]

import java.util.\*;

import java.io.\*;

public class Ass99 {

public static void main(String[] args) {

int[] array\_nums = {10, 20, 10, 20, 40, 20, 50};

int result = 0;

int x = 20;

for(int i = 0;

i < array\_nums.length - 1; i++) {

if(array\_nums[i] != x && array\_nums[i + 1] != x) {

result = 1;

}

}

if (result==0) {

System.out.printf( String.valueOf(true));

}

else

{

System.out.printf( String.valueOf(false));

}

}

}

Q.100]

import java.util.\*;

import java.io.\*;

public class Ass100 {

public static void main(String[] args) {

int[] array\_nums1 = {10, 11, 10, 20, 43, 20, 50};

int[] array\_nums2 = {10, 13, 11, 20, 44, 30, 50};

System.out.println("Array1: "+Arrays.toString(array\_nums1));

System.out.println("Array2: "+Arrays.toString(array\_nums2));

int ctr = 0; for(int i = 0; i < array\_nums1.length; i++)

{

if(Math.abs(array\_nums1[i] - array\_nums2[i]) <= 1 && array\_nums1[i] != array\_nums2[i]) ctr++;

}

System.out.printf("Number of elements: "+ctr); System.out.printf("\n");

}

}