Ex1:

import java.util.\*;

import java.lang.\*;

class Rextester

{

public static void main(String[] args) {

System.out.println("Hello\nAlexandra Abramov!");

}

}

Ex2:

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args)

{

Scanner input = new Scanner (System.in);

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

int num1 = input.nextInt();

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

int num2 = input.nextInt();

int sum = num1 + num2;

System.out.println();

System.out.println("Sum: "+sum);

}

}

Ex4:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args)

{

Scanner input = new Scanner (System.in);

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

int num1 = input.nextInt();

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

int num2 = input.nextInt();

int sum = num1 / num2;

System.out.println();

System.out.println("Sum: "+sum);

}

}

Ex5:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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);

}

}

Ex6:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

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

int n1 = scanner.nextInt();

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

int n2 = scanner.nextInt();

int sum = n1 + n2;

int minus = n1 - n2;

int multiply = n1 \* n2;

int subtract = n1 + n2;

int divide = n1 / n2;

int rnums = n1 % n2;

System.out.printf("Sum = %d\nMinus = %d\nMultiply = %d\nSubtract = %d\nDivide = %d\nRemainderOf2Numbers = %d\n ", sum, minus, multiply, subtract, divide, rnums);

}

Ex7:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args) {

Scanner in = new Scanner(System.in);

System.out.println("Input the Number: ");

int n = in .nextInt();

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

System.out.println(n + "\*" + i + " = " + (n \* i));

}

}

}

Ex8:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args){

for( int i = 0; i < 4; i++ ){

printLetterJ(i);

printLetterA(i);

printLetterV(i);

printLetterA(i);

System.out.println();

}

}

public static void printLetterA(int rowIndex){

int startIndex = 3 - rowIndex;

int endIndex = 3 + rowIndex;

boolean printwhatsBetween = false;

if( rowIndex == 2 ){

printwhatsBetween = true;

}

for( int j = 0; j < 7; j++ ){

if( j == startIndex || j == endIndex || ( j > startIndex && j < endIndex && printwhatsBetween ) ){

System.out.print( "a" );

}

else{

System.out.print(" ");

}

}

}

public static void printLetterV( int rowIndex ){

int startIndex = rowIndex;

int endIndex = 6 - rowIndex;

for( int j = 0; j < 7; j++ ){

if( j == startIndex || j == endIndex ){

System.out.print("v");

}

else{

System.out.print(" ");

}

}

}

public static void printLetterJ( int rowIndex ){

char[][] jArray = {{' ',' ', ' ', 'J'},

{' ',' ', ' ', 'J'},

{'J',' ', ' ', 'J'},

{' ','J', 'J', ' '}};

for( int j=0; j < 4; j++ ){

System.out.print(jArray[rowIndex][j]);

}

System.out.print(" ");

}

}

Ex9:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] arg) {

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

}

}

Ex10:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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);

}

}

Ex11:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args) {

Scanner io = new Scanner(System.in);

System.out.println("Input the radius of the circle: ");

double radius = io.nextDouble();

System.out.println("Perimeter is = " + (2 \* radius \* Math.PI));

System.out.println("Area is = " + (Math.PI \* radius \* radius));

}

}

Ex12:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args) {

double num = 0;

double x = 1;

Scanner sc = new Scanner(System.in);

System.out.println("Input the number(n) you want to calculate the average: ");

int n = sc.nextInt();

while (x <= n) {

System.out.println("Input number " + "("+ (int) x +")" + ":");

num += sc.nextInt();

x += 1;

}

double avgn = (num / n);

System.out.println("Average:" + avgn);

}}

Ex13:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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", height, width, area);

}

}

Ex14:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args) {

String p1 = "\* \* \* \* \* \* ==================================\n \* \* \* \* \* ==================================";

String p2 = "==============================================";

for (int i = 0; i < 4; i++) {

System.out.println(p1);

}

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

for (int i = 0; i < 6; i++) {

System.out.println(p2);

}

}

}

Ex15:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args) {

int x, y, z;

Scanner in = new Scanner(System.in);

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

x = in.nextInt();

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

y = in.nextInt();

z = x;

x = y;

y = z;

System.out.println(" Swapped values are3:" + x + " and " + y);

}

}

Ex16:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String[] args) {

String[] arra = new String[5];

arra[0] = " +\"\"\"\"\"+ ";

arra[1] = "[| o o |]";

arra[2] = " | ^ |";

arra[3] = " | '-' |";

arra[4] = " +-----+";

for (int i = 0; i < 5; i++) {

System.out.println(arra[i]);

}

}

}

Ex17:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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");

--i;

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

while (i >= 0) {

System.out.print(sum[i--]);

}

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

}

}

Ex18:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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;

}

}

Ex19:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String args[])

{

int dec\_num, rem, 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");

}

}

Ex20:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main(String args[])

{

int dec\_num, rem;

String hexdec\_num="";

/\* hexadecimal number digits \*/

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");

}

}

Ex21:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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");

}

}

Ex22:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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");

}

}

Ex23:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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");

}

}

}

}

Ex24:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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;

//System.out.println(rem);

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");

}

}

Ex25:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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");

}

}

Ex26:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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");

}

}

Ex27:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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");

}

}

Ex28:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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;

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");

}

}

Ex29:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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();

/\* convert hexadecimal to decimal \*/

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

/\* convert decimal to binary \*/

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");

}

}

Ex30:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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();

// Convert hexadecimal to decimal

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

//Convert decimal to octal

while(dec\_num != 0)

{

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");

}

}

Ex31:’

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

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");

}

}

Ex32:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{

public static void main( String args[] )

{

// create Scanner to obtain input from command window

Scanner input = new Scanner(System.in);

int number1; // first number to compare

int number2; // second number to compare

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

number1 = input.nextInt(); // read first number from user

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

number2 = input.nextInt(); // read second number from user

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 );

}

}

Ex33:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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;

}

}

Ex34:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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));

}

}

Ex35:

import java.util.\*;

import java.lang.\*;

import java.util.Scanner;

class Rextester

{ 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)));

}

}

Ex36:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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");

}

// Points will be converted to radians before calculation

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; //Kilometers

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

}

}

Ex37:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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");

}

}

Ex38:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex39:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex40:

import java.util.\*;

import java.lang.\*;

import java.nio.charset.Charset;

class Rextester

{

public static void main(String[] args) {

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

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

System.out.println(str);

}

}

}

Ex41:

import java.util.\*;

import java.lang.\*;

import java.nio.charset.Charset;

class Rextester

{

public static void main(String[] String) {

int chr = 'Z';

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

}

}

Ex42:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

class Rextester

{

public static void main(String[] args) {

Console cons;

if ((cons = System.console()) != null) {

char[] pass\_ward = null;

try {

pass\_ward = cons.readPassword("Input your Password:");

System.out.println("Your password was: " + new String(pass\_ward));

} finally {

if (pass\_ward != null) {

java.util.Arrays.fill(pass\_ward, ' ');

}

}

} else {

throw new RuntimeException("Can't get password...No console");

}

}

}

Ex43:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

class Rextester

{

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");

}

}

Ex44:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

class Rextester

{

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);

}

Ex45:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.io.File;

class Rextester

{

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");

}

}

Ex46:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.io.File;

class Rextester

{

public static void main(String[] args){

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

}

}

Ex47:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.TimeZone;

class Rextester

{

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()));

}

}

Ex48:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.TimeZone;

class Rextester

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

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

if (i % 2 != 0) {

System.out.println(i);

}

}

}

}

Ex49:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.TimeZone;

class Rextester

{ 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);

}

}

}

Ex50:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.TimeZone;

class Rextester

{ 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");

}

}

Ex51:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.TimeZone;

class Rextester

{

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");

}

}

Ex52:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.TimeZone;

class Rextester

{

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);

}

}

Ex53:

import java.util.\*;

import java.lang.\*;

import java.io.Console;

import java.util.Scanner;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.TimeZone;

class Rextester

{

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);

}

}

Ex54:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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: "+abc(x, y, z,true));

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

}

public static boolean abc(int p, int q, int r, boolean xyz)

{

if(xyz)

return (r > q);

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

}

}

Ex55:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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");

}

}

Ex56:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex57:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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;

}

}

Ex58:

import java.util.\*;

import java.lang.\*;

class Rextester

{

public static void main(String[] args){

Scanner in = new Scanner(System.in);

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

String line = in.nextLine();

String upper\_case\_line = "";

Scanner lineScan = new Scanner(line);

while(lineScan.hasNext()) {

String word = lineScan.next();

upper\_case\_line += Character.toUpperCase(word.charAt(0)) + word.substring(1) + " ";

}

System.out.println(upper\_case\_line.trim());

}

}

Ex59:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex60:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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]);

}

}

Ex61:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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());

}

}

Ex62:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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());

}

}

Ex63:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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;

}

}

Ex64:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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 (p<25 || q>75)

return false;

int x = p % 10;

int y = q % 10;

p /= 10;

q /= 10;

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

}

}

Ex65:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex66:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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 first 100 prime numbers: "+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;

}

}

Ex67:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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));

}

}

Ex68:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex69:

import java.util.\*;

import java.lang.\*;

class Rextester

{

public static void main(String[] args)

{

String main\_string = "Python";

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

}

}

Ex70:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex71:

import java.util.\*;

import java.lang.\*;

class Rextester

{

public static void main(String[] args)

{

String str1 = "Python";

String str2 = "Tutorial";

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

}

}

Ex72:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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("###");

}

}

Ex73:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex74:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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));

}

}

Ex75:

import java.util.\*;

import java.lang.\*;

class Rextester

{

public static void main(String[] args)

{

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

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

}

}

Ex76:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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]);

}

}

Ex77:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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));

}

}

Ex78:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex79:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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));

}

}

Ex80:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex81:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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));

}

}

Ex82:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex83:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex84:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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);

}

}

Ex85:

import java.util.\*;

import java.lang.\*;

class Rextester

{

public static void main(String[] args)

{

String string1 = "Hello how are you?";

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

}

}

Ex86:

import java.util.\*;

import java.lang.\*;

class Rextester

{

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();

}

}

Ex87:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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]);

}

}

}

Ex88:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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]);

}

}

}

Ex89:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

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

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

}

}

Ex90:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

// gets the value of the specified environment variable "PATH"

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

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

// gets the value of the specified environment variable "TEMP"

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

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

// gets the value of the specified environment variable "USERNAME"

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

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

}

}

Ex91:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

long startTime = System.nanoTime();

// Sample program

// Display the first 10 natural numbers.

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);

}

}

Ex92:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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");

}

}

Ex93:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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");

}

}

Ex94:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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));

}

}

Ex95:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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));

}

}

Ex96:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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");

}

}

Ex97:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

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

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

boolean testd = false;

int result=0;

int x = 10;

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

if(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");

}

}

Ex98:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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");

}

}

Ex99:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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));

}

}

}

Ex100:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

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");

}

}

Ex101:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

int[] array\_nums = {10, 11, 10, 30, 45, 20, 33, 53};

int result = 0;

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

int ctr1 = 0;

int ctr2 = 0;

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

if(array\_nums[i] == 10)

ctr1++;

if(array\_nums[i] == 20)

ctr2++;

}

System.out.printf(String.valueOf(ctr1 > ctr2));

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

}

}

Ex102:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

int[] array\_nums = {11, 11, 13, 31, 45, 20, 33, 53};

int result = 1;

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

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

{

if(array\_nums[i] == 10 || array\_nums[i] == 30)

{

result =0;

}

}

if (result==1)

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

else

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

}

}

Ex103:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

int[] array\_nums = {11, 10, 13, 10, 45, 20, 33, 53};

int result = 0;

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

int l = array\_nums.length - 1;

int[] new\_array;

while(array\_nums[l] != 10)

l--;

new\_array = new int[array\_nums.length - 1 - l];

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

new\_array[i - l - 1] = array\_nums[i];

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

}

}

Ex104:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

int[] array\_nums = {11, 15, 13, 10, 45, 20, 33, 53};

int result = 0;

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

int l = 0;

int[] new\_array;

while(array\_nums[l] != 10)

l++;

new\_array = new int[l];

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

new\_array[i] = array\_nums[i];

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

}

}

Ex105:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

int[] array\_nums = {11, 15, 13, 10, 45, 20, 11, 15};

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

int result = 0;

int l = 2;

int start = 0;

int end = array\_nums.length-l;

for(; l > 0; l--)

{

if(array\_nums[start] != array\_nums[end])

result = 1;

else

{

start++;

end++;

}

}

if (result==1)

{

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

}

else

{

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

}

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

}

}

Ex106:

import java.util.\*;

import java.lang.\*;

import java.io.\*;

class Rextester

{

public static void main(String[] args)

{

int[] array\_nums = {11, 15, 13, 10, 45, 20};

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

if(array\_nums.length >1)

{

int first = array\_nums[0];

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

array\_nums[i - 1] = array\_nums[i];

array\_nums[array\_nums.length - 1] = first;

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

}

}

}

Ex107: