Program1 – List of even numbers

public class ListEvenNumbers {

public static void main(String[] args) {

//define limit

int limit = 50;

System.out.println("Printing Even numbers between 1 and " +

limit);

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

// if the number is divisible by 2 then it is even

if( i % 2 == 0){

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

}

}

}

}

/\*

Output of List Even Numbers Java Example would be

Printing Even numbers between 1 and 50

2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 50

\*/

Program2 - Factorial of a number

/\*

This program shows how to calculate

Factorial of a number.

\*/

public class NumberFactorial {

public static void main(String[] args) {

int number = 5;

/\*

\* Factorial of any number is! n.

\* For example, factorial of 4 is 4\*3\*2\*1.

\*/

int factorial = number;

for(int i =(number - 1); i > 1; i--)

4

{

factorial = factorial \* i;

}

System.out.println("Factorial of a number is " + factorial);

}

}

/\*

Output of the Factorial program would be

Factorial of a number is 120

\*/

Program3 - Compare Two Numbers

public class CompareTwoNumbers {

public static void main(String[] args) {

//declare two numbers to compare

int num1 = 324;

int num2 = 234;

if(num1 > num2){

System.out.println(num1 + " is greater than " + num2);

}

else if(num1 < num2){

5

System.out.println(num1 + " is less than " + num2);

}

else{

System.out.println(num1 + " is equal to " + num2);

}

}

}

/\*

Output of Compare Two Numbers Java Example would be

324 is greater than 234

\*/

Program4 - Determine If Year Is Leap Year

public class DetermineLeapYearExample {

public static void main(String[] args) {

6

//year we want to check

int year = 2004;

//if year is divisible by 4, it is a leap year

if(year % 400 == 0) || ((year % 4 == 0) && (year % 100 != 0))

System.out.println("Year " + year + " is a leap year");

else

System.out.println("Year " + year + " is not a leap year");

}

}

/\*

Output of the example would be

Year 2004 is a leap year

Program5 - Fibonacci Series

/\* Fibonacci Series Java Example

This Fibonacci Series Java Example shows how to create and print

Fibonacci Series using Java.

\*/

public class JavaFibonacciSeriesExample {

public static void main(String[] args) {

//number of elements to generate in a series

int limit = 20;

long[] series = new long[limit];

//create first 2 series elements

7

series[0] = 0;

series[1] = 1;

//create the Fibonacci series and store it in an array

for(int i=2; i < limit; i++){

series[i] = series[i-1] + series[i-2];

}

//print the Fibonacci series numbers

System.out.println("Fibonacci Series upto " + limit);

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

System.out.print(series[i] + " ");

}

}

}

/\*

Output of the Fibonacci Series Java Example would be

Fibonacci Series upto 20

0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181

\*/

Program6 - Palindrome Number

/\*

This program shows how to check for in the given list of numbers

whether each number is palindrome or not

\*/

public class JavaPalindromeNumberExample {

public static void main(String[] args) {

//array of numbers to be checked

int numbers[] = new int[]{121,13,34,11,22,54};

//iterate through the numbers

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

int number = numbers[i];

int reversedNumber = 0;

int temp=0;

/\*

\* If the number is equal to it's reversed number, then

\* the given number is a palindrome number

\* For ex,121 is a palindrome number while 12 is not.

\*/

//reverse the number

while(number > 0){

temp = number % 10;

number = number / 10;

reversedNumber = reversedNumber \* 10 + temp;

8

}

if(numbers[i] == reversedNumber)

System.out.println(numbers[i] + " is a palindrome");

else

System.out.println(numbers[i] + " not a palindrome ");

}

}

}

/\*

Output of Java Palindrome Number Example would be

121 is a palindrome number

13 is not a palindrome number

34 is not a palindrome number

11 is a palindrome number

22 is a palindrome number

54 is not a palindrome number

\*/

Program7- Generate prime numbers between 1 & given

number

\*/

public class GeneratePrimeNumbersExample {

public static void main(String[] args) {

//define limit

int limit = 100;

System.out.println("Prime numbers between 1 and " + limit);

//loop through the numbers one by one

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

boolean isPrime = true;

//check to see if the number is prime

for(int j=2; j < i ; j++){

if(i % j == 0){

isPrime = false;

break;

}

}

// print the number

if(isPrime)

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

}

9

}

}

/\*

Output of Prime Numbers example would be

Prime numbers between 1 and 100

1 2 3 5 7 11 13 17 19 23 29 31 37 41 43 47 53 59 61 67 71 73 79 83 89 97

\*/

Program8- Pyramid of stars using nested for loops

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*\*\*

\*/

public class JavaPyramid1 {

public static void main(String[] args) {

for(int i=1; i<= 5 ;i++){

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

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

}

//generate a new line

System.out.println("");

}

}

}

/\*

Output of the above program would be

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*\*\*

\*/

Program9 – Reversed pyramid using for loops &

decrement operator.

/\*

Java Pyramid 5 Example

This Java Pyramid example shows how to generate pyramid or triangle

like given below using for loop.

12345

1234

123

12

1

\*/

public class JavaPyramid5 {

public static void main(String[] args) {

for(int i=5; i>0 ;i--){

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

System.out.print(j+1);

}

System.out.println("");

}

}

}

/\*

Output of the example would be

12345

1234

123

12

1

\*/

Program10 - Nested Switch

/\*

Statements Example

This example shows how to use nested switch statements in a

java program.

\*/

11

public class NestedSwitchExample {

public static void main(String[] args) {

/\*

\* Like any other Java statements, switch statements

\* can also be nested in each other as given in

\* below example.

\*/

int i = 0;

int j = 1;

switch(i)

{

case 0:

switch(j)

{

case 0:

System.out.println("i is 0, j is 0");

break;

case 1:

System.out.println("i is 0, j is 1");

break;

12

default:

System.out.println("nested default

case!!");

}

break;

default:

System.out.println("No matching case found!!");

}

}

}

/\*

Output would be,

i is 0, j is 1

\*/

Program11 - Calculate Circle Area using radius

/\*

This program shows how to calculate

area of circle using it's radius.

\*/

import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

public class CalculateCircleAreaExample {

public static void main(String[] args) {

int radius = 0;

System.out.println("Please enter radius of a circle");

try

{

//get the radius from console

BufferedReader br = new BufferedReader(new

InputStreamReader(System.in));

radius = Integer.parseInt(br.readLine());

}

//if invalid value was entered

catch(NumberFormatException ne)

{

System.out.println("Invalid radius value" + ne);

System.exit(0);

}

catch(IOException ioe)

{

System.out.println("IO Error :" + ioe);

System.exit(0);

}

/\*

\* Area of a circle is

\* pi \* r \* r

\* where r is a radius of a circle.

\*/

//NOTE : use Math.PI constant to get value of pi

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

System.out.println("Area of a circle is " + area);

}

}

/\*

Output of Calculate Circle Area using Java Example would be

Please enter radius of a circle

19

Area of a circle is 1134.1149479459152

\*/

Program12 - Factorial of a number using recursion

/\*

This program shows how to calculate

Factorial of a number using recursion function.

\*/

import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

public class JavaFactorialUsingRecursion {

public static void main(String args[]) throws NumberFormatException,

IOException{

System.out.println("Enter the number: ");

//get input from the user

BufferedReader br=new BufferedReader(new

InputStreamReader(System.in));

int a = Integer.parseInt(br.readLine());

//call the recursive function to generate factorial

int result= fact(a);

System.out.println("Factorial of the number is: " + result);

}

static int fact(int b)

{

if(b <= 1)

//if the number is 1 then return 1

return 1;

else

//else call the same function with the value - 1

return b \* fact(b-1);

}

}

/\*

Output of this Java example would be

Enter the number:

5

Factorial of the number is: 120

\*/

Program13 – pyramid of numbers using for loops

import java.io.BufferedReader;

import java.io.InputStreamReader;

public class GeneratePyramidExample {

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

BufferedReader keyboard = new BufferedReader (new

InputStreamReader(System.in));

System.out.println("Enter Number:");

int as= Integer.parseInt (keyboard.readLine());

System.out.println("Enter X:");

int x= Integer.parseInt (keyboard.readLine());

int y = 0;

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

16

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

System.out.print(y + "\t");

y = y + x;

}

System.out.println("");

}

}

}

/\*

Output of this example would be

Enter Number:

5

Enter X:

1

0

1 2

3 4 5

6 7 8 9

10 11 12 13 14

----------------------------------------------

17

Enter Number:

5

Enter X:

2

0

2 4

6 8 10

12 14 16 18

20 22 24 26 28

----------------------------------------------

Enter Number:

5

Enter X:

3

0

3 6

9 12 15

18 21 24 27

30 33 36 39 42

\*/

Program14 – To Find Maximum of Two Numbers.

/\*

To Find Maximum of 2 Numbers using if else

\*/

class Maxoftwo{

public static void main(String args[]){

//taking value as command line argument.

//Converting String format to Integer value

int i = Integer.parseInt(args[0]);

int j = Integer.parseInt(args[1]);

if(i > j)

System.out.println(i+" is greater than "+j);

else

System.out.println(j+" is greater than "+i);

}

}

Program15 – To Find Minimum of Two Numbers using

conditional operator

/\*

To find minimum of 2 Numbers using ternary operator

\*/

class Minoftwo{

public static void main(String args[]){

//taking value as command line argument.

//Converting String format to Integer value

int i = Integer.parseInt(args[0]);

int j = Integer.parseInt(args[1]);

int result = (i<j)?i:j;

System.out.println(result+" is a minimum value");

}

}

Program 16

/\* Write a program that will read a float type value from the keyboard and

print the following output.

->Small Integer not less than the number.

->Given Number.

->Largest Integer not greater than the number.

\*/

class ValueFormat{

public static void main(String args[]){

double i = 34.32; //given number

System.out.println("Small Integer not greater than the number :

"+Math.ceil(i));

System.out.println("Given Number : "+i);

System.out.println("Largest Integer not greater than the number :

"+Math.floor(i));

}

Program 17 - Write a program to generate 5 Random nos.

between 1 to 100, and it should not follow with decimal

point.

class RandomDemo{

public static void main(String args[]){

for(int i=1;i<=5;i++){

System.out.println((int)(Math.random()\*100));

}

}

}

Program 18 - Write a program to display a greet message

according to Marks obtained by student.

class SwitchDemo{

public static void main(String args[]){

int marks = Integer.parseInt(args[0]); //take marks

as command line argument.

switch(marks/10){

case 10:

case 9:

case 8:

System.out.println("Excellent");

break;

case 7:

System.out.println("Very Good");

break;

case 6:

System.out.println("Good");

break;

case 5:

System.out.println("Work Hard");

break;

case 4:

System.out.println("Poor");

break;

case 3:

case 2:

case 1:

case 0:

System.out.println("Very Poor");

break;

default:

System.out.println("Invalid value Entered");

}

}

}

Program 19 - Write a program to find SUM AND PRODUCT of

a given Digit.

class Sum\_Product\_ofDigit{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

//taking value as command line argument.

int temp = num,result=0;

//Logic for sum of digit

while(temp>0){

result = result + temp;

temp--;

}

System.out.println("Sum of Digit for "+num+" is : "+result);

//Logic for product of digit

temp = num;

result = 1;

while(temp > 0){

result = result \* temp;

temp--;

}

System.out.println("Product of Digit for "+num+" is : "+result);

}

}

Program 20 - Write a program to find sum of all

integers greater than 100 and less than 200 that are

divisible by 7

class SumOfDigit{

public static void main(String args[]){

int result=0;

for(int i=100;i<=200;i++){

if(i%7==0)

result+=i;

}

System.out.println("Output of Program is : "+result);

}

}

Program 21 - Write a program to concatenate string

using for Loop

Input - 5

Output - 1 2 3 4 5 \*/

class Join{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

String result = " ";

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

result = result + i + " ";

}

System.out.println(result);

}

}

Program 22 - Program to Display Multiplication Table

class MultiplicationTable{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

System.out.println("\*\*\*\*\*MULTIPLICATION TABLE\*\*\*\*\*");

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

for(int j=1;j<=num;j++){

System.out.print(" "+i\*j+" ");

}

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

}

}

}

Program 23 - Write a program to Swap the values

class Swap{

public static void main(String args[]){

int num1 = Integer.parseInt(args[0]);

int num2 = Integer.parseInt(args[1]);

System.out.println("\n\*\*\*Before Swapping\*\*\*");

System.out.println("Number 1 : "+num1);

System.out.println("Number 2 : "+num2);

//Swap logic

num1 = num1 + num2;

num2 = num1 - num2;

num1 = num1 - num2;

System.out.println("\n\*\*\*After Swapping\*\*\*");

System.out.println("Number 1 : "+num1);

System.out.println("Number 2 : "+num2);

}

}

Program 24 - Write a program to convert given no. of

days into months and days.(Assume that each month is of

30 days)

Input - 69

Output - 69 days = 2 Month and 9 days \*/

class DayMonthDemo{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

int days = num%30;

int month = num/30;

System.out.println(num+" days = "+month+" Month and "+days+" days");

}

}

Program 25 - Write a program to Display Invert Triangle

using while loop.

Input - 5

Output :

5 5 5 5 5

4 4 4 4

3 3 3

2 2

1

class InvertTriangle{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

while(num > 0){

for(int j=1;j<=num;j++){

System.out.print(" "+num+" ");

}

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

num--;

}

}

}

Program 26 - Write a program to find whether given no.

is Armstrong or not.

Example :

Input - 153

Output - 1^3 + 5^3 + 3^3 = 153, so it is Armstrong no. \*/

class Armstrong{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

int n = num; //use to check at last time

int check=0,remainder;

while(num > 0){

remainder = num % 10;

check = check + (int)Math.pow(remainder,3);

num = num / 10;

}

if(check == n)

System.out.println(n+" is an Armstrong Number");

else

System.out.println(n+" is not a Armstrong Number");

}

}

Program 27 - switch case demo

Example :

Input - 124

Output - One Two Four \*/

class SwitchCaseDemo{

public static void main(String args[]){

try{

int num = Integer.parseInt(args[0]);

int n = num; //used at last time check

int reverse=0,remainder;

while(num > 0){

remainder = num % 10;

reverse = reverse \* 10 + remainder;

num = num / 10;

}

String result=""; //contains the actual output

while(reverse > 0){

remainder = reverse % 10;

reverse = reverse / 10;

switch(remainder){

case 0 :

result = result + "Zero ";

break;

case 1 :

result = result + "One ";

break;

case 2 :

result = result + "Two ";

break;

case 3 :

result = result + "Three ";

break;

case 4 :

result = result + "Four ";

break;

case 5 :

result = result + "Five ";

break;

case 6 :

result = result + "Six ";

break;

case 7 :

result = result + "Seven ";

break;

case 8 :

result = result + "Eight ";

break;

case 9 :

result = result + "Nine ";

break;

default:

result="";

}

}

System.out.println(result);

}catch(Exception e){

System.out.println("Invalid Number Format");

}

}

}

Program 28 - Write a program to generate Harmonic

Series.

Input - 5

Output - 1 + 1/2 + 1/3 + 1/4 + 1/5 = 2.28 (Approximately) \*/

class HarmonicSeries{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

double result = 0.0;

while(num > 0){

result = result + (double) 1 / num;

num--;

}

System.out.println("Output of Harmonic Series is "+result);

}}

Program 29 - Write a program to find average of

consecutive N Odd no. and Even no.

class EvenOdd\_Avg{

public static void main(String args[]){

int n = Integer.parseInt(args[0]);

int cntEven=0,cntOdd=0,sumEven=0,sumOdd=0;

while(n > 0){

if(n%2==0){

cntEven++;

sumEven = sumEven + n;

}

else{

cntOdd++;

sumOdd = sumOdd + n;

}

n--;

}

int evenAvg,oddAvg;

evenAvg = sumEven/cntEven;

oddAvg = sumOdd/cntOdd;

System.out.println("Average of first N Even no is "+evenAvg);

System.out.println("Average of first N Odd no is "+oddAvg);

}

}

Program 30 - Display Triangle as follow.

1

2 3

4 5 6

7 8 9 10 ... N \*/

class Output1{

public static void main(String args[]){

int c=0;

int n = Integer.parseInt(args[0]);

loop1: for(int i=1;i<=n;i++){

loop2: for(int j=1;j<=i;j++){

if(c!=n){

c++;

System.out.print(c+" ");

}

else

break loop1;

}

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

}

}

}

Extra Programs 1 - Write a program to Find whethernumber is Prime or Not.

class PrimeNo{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

int flag=0;

for(int i=2;i<num;i++){

if(num%i==0)

{

System.out.println(num+" is not a Prime Number");

flag = 1;

break;

}

}

if(flag==0)

System.out.println(num+" is a Prime Number");

}

}

Program 2 - Write a program to find whether no. is

palindrome or not.

Input - 12521 is a palindrome no.

Input - 12345 is not a palindrome no. \*/

class Palindrome{

public static void main(String args[]){

int num = Integer.parseInt(args[0]);

int n = num; //used at last time check

int reverse=0,remainder;

while(num > 0){

remainder = num % 10;

reverse = reverse \* 10 + remainder;

num = num / 10;

}

if(reverse == n)

System.out.println(n+" is a Palindrome Number");

else

System.out.println(n+" is not a Palindrome Number");

}

}

Program 3 - Display Triangle as follow

0

1 0

1 0 1

0 1 0 1 \*/

class Output2{

public static void main(String args[]){

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

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

System.out.print(((i+j)%2)+" ");

}

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

}

}

}