// print odd num triangle

**public** **class** Odd

{

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

{

**int** num=1;

**int** k=1;

**boolean** b=**false**;

**while**(num>=1)

{

**for**(**int** i=0;i<num;i++)

{

**for**(**int** j=0;j<num;j++)

{

System.***out***.print(k+" ");

k+=2;

}

System.***out***.println();

num++;

**if**(num==10)

{

b=**true**;

**break**;

}

}

**if**(b==**true**)

**break**;

}

}

}

//Amstrong

**public** **class** Amstrong {

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

{

**int** num=370;

**int** temp=num;

**int** sum=0;

**int** mul=0;

**while**(num>0)

{

**int** rem=num%10;

mul=rem\*rem\*rem;

sum=sum+mul;

//System.out.println(sum);

num=num/10;

}

//System.out.println(sum);

**if**(temp==sum)

System.***out***.println("Armstrong");

**else**

System.***out***.println("Not an armstrong");

}

}

**//Convert Decimal To Binary**

**public** **class** ConverDecToBin

{

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

{

**int** num=10;

**int** i=0;

**int** binary[]=**new** **int**[25];

**while**(num>0)

{

binary[i]=num%2;

num=num/2;

i++;

}

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

{

System.***out***.print(binary[j]);

}

}

}

**//Conver Binary To Decimal**

**public** **class** ConvertBinToDec

{

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

{

**int** bin=1000;

**int** temp=0;

**int** dec=0;

**int** power=0;

**while**(**true**)

{

**if**(bin==0)

{

**break**;

}

**else**

{

temp=bin%10;

dec+=temp\*Math.*pow*(2,power);

bin=bin/10;

power++;

}

}

System.***out***.println(dec);

}

}

//Remove Duplicate Numbers

import java.util.ArrayList;

import java.util.HashSet;

import java.util.Set;

public class Duplicate

{

public static void main(String[] args)

{

int i=0;

Set s2=new HashSet();

Set s3=new HashSet();

int[] c=new int[31];

for( i=0;i<30;i++)

{

c[i]=i;

}

c[i]=22;

for(int a:c)

{

//Integer o=(Integer) a;

if(!s2.add(a))

{

s3.add(a);

}

}

s2.removeAll(s3);

s3.removeAll(s2);

System.out.println(s2);

System.out.println(s3);

}

}

**//Fabanacci**

**//Substring of single char**

**//Syso(|);**

**public** **class** Fibbonacci

{

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

{

String str="abcdefghikj";

System.***out***.println(str.substring(6));

//1. If a number is Starting with 0 it converts into octal

//0\*8^2+1\*8^1+1\*8^0+

//0\*8^2+2\*8^1+2\*8^0

System.***out***.println(011|022);

**int** a=0;

**int** b=1;

System.***out***.println(a);

System.***out***.println(b);

**for**(**int** i=2;i<10;i++)

{

**int** c=a+b;

System.***out***.println(c);

a=b;

b=c;

}

}

}

//Occurences

import java.io.BufferedReader;

import java.io.FileReader;

import java.util.ArrayList;

import java.util.Collections;

import java.util.List;

public class MaxRepeat

{

public static void main(String[] args)

{

BufferedReader br=null;

String line;

String path="C:\\Users\\HP\\Desktop\\Si.txt";

List l=new ArrayList();

try

{

br=new BufferedReader(new FileReader(path));

while((line=br.readLine())!=null)

{

String[] s=line.split(" ");

for(String str:s)

{

l.add(str);

}

}

for(Object o:l)

{

String sf=(String)o;

int num=Collections.frequency(l, sf);

System.out.println(sf+" "+num);

}

}

catch(Throwable t)

{

t.printStackTrace();

}

finally

{

try

{

if(br!=null)

br.close();

}

catch(Throwable t)

{

}

}

}

}

//PErfet Number

**public** **class** PerfectNumber

{

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

{

**int** num=17;

**int** sum=0;

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

{

**if**(num%i==0)

{

sum=sum+i;

}

}

**if**(sum==num)

{

System.***out***.println("Perfect");

}

**else**

{

System.***out***.println("Not a Perfect");

}

}

}

//printing 1-100 first even numbers followed by odd numbers.

**public** **class** PEO {

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

**int** i,j;

**int** k=0;

**for**(i=1,j=0;j<=200;i+=2,j+=2)

{

**if**(i<=100)

{

System.***out***.println(i);

}

**if**(j>100 &&j<200)

{

System.***out***.println(k+=2);

}

}

}

/\*for(int m=0;m<ar1.length;m++)

{

System.out.print(ar2[m]+" ");

} }\*/

}

//Reversing a number

**public** **class** ReverseNumber

{

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

{

**int** num=9856;

**int** rem=0;

**int** sum=0;

**while**(num>0)

{

rem=num%10;

num=num/10;

sum=sum\*10+rem;

}

System.***out***.println(sum);

}}

//Reversing a string

**public** **class** ReverseString

{

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

{

String str="Hi How are you";

String[] c=str.split(" ");

String ss="";

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

{

StringBuilder sb=**new** StringBuilder(c[i]);

String s=sb.reverse().toString();

ss+=s;

}

System.***out***.println(ss);

}

}

//Sorting

**import** java.util.Arrays;

**public** **class** Tpo2MaxNum

{

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

{

**int**[] num=**new** **int**[5];

num[0]=5;

num[1]=10;

num[2]=3;

num[3]=6;

num[4]=9;

System.***out***.println("Using Bubble sort");

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

{

**for**(**int** j=0;j<num.length;j++)

{

**if**(num[i]>num[j])

{

**int** temp=num[i];

num[i]=num[j];

num[j]=temp;

}

}

}

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

{

System.***out***.println(num[i]);

}

System.***out***.println();

System.***out***.println();

System.***out***.println();

System.***out***.println("Sort without using temp variable");

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

{

**for**(**int** j=0;j<num.length;j++)

{

**if**(num[i]>num[j])

{

num[i]=num[i]+num[j];

num[j]=num[i]-num[j];

num[i]=num[i]-num[j];

}

}

}

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

{

System.***out***.println(num[i]);

}

System.***out***.println();

System.***out***.println();

System.***out***.println();

System.***out***.println("Sort using Builtin Function");

Arrays.*sort*(num);

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

{

System.***out***.println(num[i]);

}

System.***out***.println();

System.***out***.println();

System.***out***.println();

System.***out***.println(num[num.length-1]);

System.***out***.println(num[num.length-2]);

}

}