LABORATOR 1

1.

package problema1;

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner scanner = new Scanner(System.in);

float lungime, latime, perimetru, arie;

System.out.println("Dati lungimea: ");

lungime= scanner.nextFloat();

System.out.println("Dati latimea: ");

latime = scanner.nextFloat();

perimetru = 2\*(lungime+latime);

arie = lungime\*latime;

System.out.println("Perimetrul este: "+perimetru+"\nAria este: "+arie);

}

}

2.

package problema2;

import java.io.\*;

import java.util.Scanner;

public class Main

{

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

String numeFisier = "src/problema2/in.txt";

File fisier = new File(numeFisier);

Scanner scanner = new Scanner(fisier);

int suma = 0, min = 999, max = 0, nr\_numere = 0;

float media;

while (scanner.hasNext()) {

if (scanner.hasNextInt()) {

int numar = scanner.nextInt();

nr\_numere++;

suma += numar;

if (min > numar) {

min = numar;

}

if (max < numar) {

max = numar;

}

} else {

scanner.next();

}

}

scanner.close();

media = (float) suma / nr\_numere;

Writer writer = new FileWriter("src/problema2/out.txt");

writer.write("Suma: "+suma);

writer.write("\nMaximul: "+max);

writer.write("\nMimimul: "+min);

writer.write("\nMedia: "+media);

writer.close();

}

}

3.

package problema3;

import java.util.Scanner;

public class Main

{

public static void main(String[] args)

{

Scanner scanner = new Scanner(System.in);

int numar, nr\_div=0;

System.out.println("Dati numarul: ");

numar = scanner.nextInt();

System.out.println("1");

int divizor=2;

while(divizor<=numar/2)

{

if(numar%divizor==0) {

System.out.println(divizor);

nr\_div++;

}

divizor++;

}

System.out.println(numar);

if(nr\_div == 0)

System.out.println("Numarul este prim!");

}

}

4.

package problema4;

import java.util.Random;

public class Main

{

public static void main(String[] args)

{

int nr1, nr2;

Random random = new Random();

nr1= random.nextInt(31);

nr2= random.nextInt(31);

System.out.println("Numarul 1: "+nr1+"\nNumarul 2: "+nr2);

System.out.println("CMMDC-ul: "+CMMDC(nr1,nr2));

}

public static int CMMDC(int a, int b)

{

while(a!=b) {

if (a < b)

b = b - a;

else

a = a - b;

}

return a;

}

}

5.

package problema5;

import java.util.Random;

public class Main

{

public static void main(String[] args)

{

Random random = new Random();

int nr;

nr= random.nextInt(21);

System.out.println("Numarul generat: "+nr);

int f1=1,f2=1,f\_urm;

f\_urm=f1+f2;

do {

if(nr==f\_urm||nr==1) {

System.out.println("Numarul apartine sirului lui fibonacii!");

break;

}

f1=f2;

f2=f\_urm;

f\_urm=f1+f2;

}while(f\_urm<=20);

}

}