USHTRIME

13 JANAR 2021

1. Ndertoni nje program qe gjen Shumen e ekuacionit

$$y = \sum_{i=1}^{n}(i + a)^2$$

```java
public class Shuma_y {
    public static void main(String[] args) {
        double y;
        int n = 10;
        double a = 4.5;
        double S = 0;
        for(int i=1; i<=n; i++){
            S += Math.pow(i+a, 2);
        }
        y = S;
        System.out.println("Vlera e y = "+y);
    }
}
```

2. Ndertoni nje program qe gjen Prodhimin e ekuacionit

$$y = \prod_{i=1}^{n}(i + a)^2$$

```java
public class Prodhimi_y {
    public static void main(String[] args) {
        double y;
        int n = 10;
        double a = 4.5;
        int Pi = 1;
        for(int i=1; i<=n; i++){
            Pi *= Math.pow(i+a, 2);  }
        y = Pi;
        System.out.println("Vlera e y ="+y);
    }
}
```

3. Ndertoni nje program qe gjen Shumen e ekuacionit

$$y = \frac{x}{3} + 2\sum_{i=1}^{m+n+1}(x + \frac{2}{i})^{\frac{i}{3}}$$

```java
public class Ekuacioni_Shuma {
    public static void main(String[] args) {
        double y;
        int s = 0;
        int m = 1;
        int n = 1;
        int x = 1;
        for(int i=1; i<=(m+n+1); i++){
            s += Math.pow((x+2/i), i/3);
        }
        System.out.println("Shuma eshte: "+s);
        y = (x/3)+2*s;
        System.out.println("Vlera e y = "+y);
    }
}
```

4. Ndertoni nje program qe gjen masen ideale trupore sipas formules se dhene.

$$BMI = \frac{weight}{height^2} * 703$$

```java
import java.util.Scanner;
public class Masa_Ideale_Trupore {
    private static Scanner input;
    public static void main(String[] args) {
        // 1 inch = 2.54 cm
        // 1 pound = 0.453 kg

        input = new Scanner(System.in);
        System.out.print("Jepni gjatesin: ");
        double height =input.nextDouble();

        System.out.print("Jepni peshen: ");
        double weight = input.nextDouble();

        double BMI;
        BMI = (weight / Math.pow(height, 2)) * 703;
        System.out.println("Rezultati i BMI eshte: "+BMI);

        if (BMI <= 18.5){
            System.out.println("Underweight");
        }else if(BMI >= 18.5 && BMI <= 24.9){
            System.out.println("Normal");
        }else if(BMI >= 25.0 && BMI <= 29.9){
            System.out.println("Overweight");
        }else{
            System.out.println("OBESE!!!");
        }
    }
}
```

5. Ndertoni nje program qe gjen shumen e elementet te dhene te matrices.
Me pas duke marr nje numer cfaredo nga tastiera kontrolloni nese shuma eshte me e madhe se numri I dhene te afishohet perpjestimi I shumes me kete vlere, nese shuma eshte me e vogel te afishohet perseri shuma matrices.

```java
import java.util.Scanner;
public class Shuma_Total_Matrices {
    private static Scanner input;
    public static void main(String[] args) {

        int S = 0;
        int [][] matrix ={{1, 2, 3}, {4, 5, 6}, {7, 8, 9}};

        for(int i=0; i<matrix.length; i++){
            for(int j=0; j<matrix.length; j++){
                S += matrix[i][j];
            }
        }
        System.out.println("Shuma eshte: "+S);

        input = new Scanner(System.in);
```

```java
            System.out.print("Vendosni nje numer per vleren x: ");
            int x = input.nextInt();

            if(S>x){
                    int a = S/x;
                    System.out.printf("Vlera e %s / %s ",S,x+" = "+a);
            }else{
                    System.out.println("Shuma eshte: "+S);
            }
        }
}
```

6. Ndertoni nje program qe merr vlerat e matrices nga tastiera dhe nese keto vlera jen negative I ruan ne nje vector A, nese jane positive I ruan ne nje vector B dhe afishon keto 2 vektore.

```java
import java.util.Scanner;
public class kontrollim {

        private static Scanner input;

        public static void main(String[] args) {

                input = new Scanner(System.in);

                int n = 3, m = 3;
                int [][] matrix = new int[n][m];

                System.out.print("Vendosni elementet e matrices: ");
                for(int i=0; i<n; i++){
                        for(int j=0; j<m; j++){
                                matrix[i][j] = input.nextInt();
                        }
                }

                printmatrix(matrix); // therasim funksionin per te afishuar matricen

                String vekA = "";
                String vekB = "";

                for(int i=0; i<n; i++){
                        for(int j=0; j<m; j++){
                                if(matrix[i][j]<0){
                                        vekA += Math.pow(matrix[i][j], 2);
                                }else{
                                        vekB += Math.sqrt(matrix[i][j]);
                                }
                        }
                }
                System.out.println("vekA: "+vekA);
                System.out.print("vekB: "+vekB);
        }

        public static void printmatrix(int a[][]){  //funksioni qe do te afishoj vlerat e matrix
                for(int i=0; i<a.length; i++){
```

```java
            for(int j=0; j<a[i].length; j++){
                    System.out.print(a[i][j] + " ");
            }
            System.out.println();
        }
    }
}
```

Detyre:

1. Ndertoni nje program ne JAVA, qe llogarit mesataren e notave te nje student. Notat ruhen ne vektorin Nota, vlera e tyre percaktohen ne momentin e ekzekutimit nga tastiera.

2. Ndertoni nje program ne te cilin:

   - krijohet nje matrice double[][]Matrica, ku elementet te percaktohen nga perdoruesi
   - te nderothet klasa publike Lexo, ne te cilen do krijoni 2 variabla reference neg dh epos, ku elementet negative te matrices te vendosen ne nje ArrayList te quajtur neg dhe elementet negative te matrices te vendosen ne nje ArrayList te quajtur poz.
   - te afishohen elementet e ketyre tabelave, perkatesisht neg dhe poz.