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Develop JAVA prg to develop class with member usn, name, an array credits and array marks. Include methods to accept and display details and a method to calculate SGPA.

A. import java.util.Scanner;
import java.util.Arrays;

class SGPA { // constructor
    String usn, name;
    int[] credits, marks;
}

public double calculate(){ // sgpa calculate.
    double tot_credits = 0.0;
    double tot_sum = 0.0;
    for(int i=0; i<8; i++){
        tot_credits += credits[i];
        tot_sum = grade(marks[i]) * credits[i];
    }
    return tot_sum / tot_credits;
}

private double grade(int marks){
    if(marks >= 90) return 10;
    else if(marks >= 80) return 9;
    else if(marks >= 70) return 8;
    else if(marks >= 60) return 7;
    else if(marks >= 50) return 6;
    else if(marks >= 40) return 5;
    else return 0.0;
}

```
public static void main(String arg[]){
  Scanner in = new Scanner(System.in);
  int[] credits = new int[8];
  int[] marks = new int[8];

  sout("Enter credits: ");
  for(int i=0; i<8; i++){
    credits[i] = in.nextInt();
  }
  sout("Enter marks: ");
  for(int i=0; i<8; i++){
    marks[i] = in.nextInt();
  }
  SGPA nav = new SGPA("CS174",
  "Navneeth", credits, marks);
  nav.accept();

public void accept(Scanner in){
  for(int i=0; i<8; i++){
    credits[i] = in.nextInt();
  }
  sout("marks: ");
  for(int i=0; i<8; i++){
    marks[i] = in.nextInt();
  }
}
```

// accepts marks & credits

```
public static void main(Strings args[]){
    Scanner in = new scanner(system.in);
    SGPA nav = new SGPA
    ("CS174", "Navneeth KS", credits,
      marks);   // object
    nav.accept(in);
    System.out.println(Arrays.tostring
                        (nav.credits));
    system.out.println(nav.calculate());
```

output:

credits: 4 4 3 3 3 1 1 1
marks: 100 100 90 90 90 70 70 70

[4, 4, 3, 3, 3, 1, 1, 1]

9.7