Soal Kalkulator

**Class Kalkulator :**

package com.rplbo.uts2;  
  
public class Kalkulator {  
 private int bil2;  
 private int bil1;  
 private String op;  
  
 public Kalkulator(BilanganString b1, BilanganString b2, Operator op) {  
 this.bil1 = b1.getBilangan();  
 this.bil2 = b2.getBilangan();  
 this.op = op.getOperatorSimbol();  
 }  
  
 public void hitung() {  
 double hasil = 0;  
 switch (op) {  
 case "\*":  
 hasil = bil1 \* bil2;  
 break;  
 case "/":  
 hasil = (double) bil1 / bil2;  
 break;  
 case "+":  
 hasil = bil1 + bil2;  
 break;  
 case "-":  
 hasil = bil1 - bil2;  
 break;  
 case "^":  
 hasil = Math.*pow*(bil1, bil2);  
 break;  
 }  
 System.*out*.println("Hasil: " + hasil);  
 }  
}

**Class BilanganString :**

package com.rplbo.uts2;  
  
import java.util.HashMap;  
import java.util.Map;  
  
public class BilanganString {  
 // Atribut  
 private String bilanganString;  
 private int bilangan;  
  
 // Map untuk konversi bilangan dari String ke Integer  
 private static final Map<String, Integer> *BILANGAN\_MAP* = new HashMap<String, Integer>() {{  
 put("nol", 0);  
 put("satu", 1);  
 put("dua", 2);  
 put("tiga", 3);  
 put("empat", 4);  
 put("lima", 5);  
 put("enam", 6);  
 put("tujuh", 7);  
 put("delapan", 8);  
 put("sembilan", 9);  
 put("sepuluh", 10);  
 put("sebelas", 11);  
 put("dua belas", 12);  
 put("tiga belas", 13);  
 put("empat belas", 14);  
 put("lima belas", 15);  
 put("enam belas", 16);  
 put("tujuh belas", 17);  
 put("delapan belas", 18);  
 put("sembilan belas", 19);  
 put("dua puluh", 20);  
 }};  
  
 // Constructor  
 public BilanganString(String kalimat) {  
 this.bilanganString = kalimat.toLowerCase();  
 this.bilangan = konversiBilangan(this.bilanganString);  
 }  
  
 // Getter untuk atribut bilangan  
 public int getBilangan() {  
 return this.bilangan;  
 }  
  
 // Method untuk mengecek apakah bilangan lebih dari 10  
 public boolean apakahLebihDari10() {  
 return this.bilangan > 10;  
 }  
  
 // Method untuk mengecek apakah bilangan memiliki 2 digit  
 public boolean apakahDuaDigit() {  
 return this.bilangan >= 10 && this.bilangan <= 20;  
 }  
  
 // Private method untuk konversi bilangan dari String ke Integer  
 private int konversiBilangan(String kalimat) {  
 String[] kata = kalimat.split(" ");  
 int hasil = 0;  
  
 for (String s : kata) {  
 if (s.equals("puluh")) {  
 hasil \*= 10;  
 } else if (s.equals("belas")) {  
 hasil += 10;  
 } else {  
 hasil += *BILANGAN\_MAP*.get(s);  
 }  
 }  
  
 return hasil;  
 }  
}

**Class Operator:**

package com.rplbo.uts2;  
  
public class Operator {  
 // Atribut  
 String operatorString;  
 String operatorSimbol;  
  
 // Constructor  
 public Operator(String op) {  
 this.operatorString = op.toLowerCase();  
  
 switch (this.operatorString) {  
 case "kali":  
 this.operatorSimbol = "\*";  
 break;  
 case "bagi":  
 this.operatorSimbol = "/";  
 break;  
 case "tambah":  
 this.operatorSimbol = "+";  
 break;  
 case "kurang":  
 this.operatorSimbol = "-";  
 break;  
 case "pangkat":  
 this.operatorSimbol = "^";  
 break;  
 default:  
 this.operatorSimbol = "";  
 }  
 }  
  
 // Getter untuk atribut operatorSimbol  
 public String getOperatorSimbol() {  
 return this.operatorSimbol;  
 }  
}

**Soal FeetInch :**

package com.rplbo.uts3;  
  
public class Main {  
 public static void main(String[] args) {  
 double feet = 5;  
 double inches = 10;  
 int totalInches = 68;  
  
 Main converter = new Main();  
  
 double result1 = converter.FeetIncToCm(feet, inches);  
 double result2 = converter.FeetIncToCm(totalInches);  
  
 System.*out*.println(feet + " feet " + inches + " inches = " + result1 + " cm");  
 System.*out*.println(totalInches + " inches = " + result2 + " cm");  
 }  
  
 public double FeetIncToCm(double feet, double inches) {  
 if (feet <= 0 || inches <= 0 || inches >= 12) {  
 return -1;  
 }  
  
 double totalInches = feet \* 12 + inches;  
 double cm = totalInches \* 2.54;  
  
 return cm;  
 }  
  
 public double FeetIncToCm(int inches) {  
 if (inches <= 0) {  
 return -1;  
 }  
  
 double feet = inches / 12;  
 double remainingInches = inches % 12;  
  
 return FeetIncToCm(feet, remainingInches);  
 }  
}