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1 import java.util.Scanner;
2
3 // Lab05
4 // The Federal Tax Rate Program
5 // This is the student, starting version of Lab05.
6 public class FederalTaxRate
7 {
8     public static void main(String args[])
9     {
10        System.out.println("Lab05: The Federal Tax Rate Program");
11        System.out.println();
12        Scanner scan = new Scanner(System.in);
13        System.out.println("Please enter your income: $");
14        double income = scan.nextDouble();
15        System.out.println("Please enter your marital status: (1 for married or 0 for unmarried)");
16        int marriage = scan.nextInt();
17        scan.close();
18        double tax = taxRate(marriage,income);
19        System.out.println("Total federal tax due: $" + tax);
20
21    }
22    // Determine the total federal tax
23    public static double taxRate(int marriage, double income) {
24        double tax = 0.0;
25        if (marriage ==1) {
26            if (income <= 19900.0) {
27                tax = 0.1 * income;
28            }
29            else if (income <= 81050.0) {
30                tax = 1990 + ((income-19900) * 0.12);
31            }
32            else if (income <= 172750.0) {
33                tax = 9328 + ((income-81050) * 0.22);
34            }
35            else if (income <= 329850.0) {
36                tax = 29502 + ((income-172750) * 0.24);
37            }
38            else if (income <= 418850.0) {
39                tax = 67206 + ((income-329850) * 0.32);
40            }
41            else if (income <= 628300.0) {
42                tax = 95686 + ((income-418850) * 0.35);
43            }
44            else if (income > 628300.0) {
45                tax = 168994 +((income-628300) * 0.37);
46            }
47        }
48        else if (marriage ==0) {
49            if (income <= 9950.0) {
50                tax = 0.1 * income;
51            }
52            else if (income <= 40525.0) {
53                tax = 995 + ((income-9950) * 0.12);
54            }
55        }
56    }
57 }
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54     }
55     else if (income <= 86375.0) {
56         tax = 4664 + ((income-40525) * 0.22);
57     }
58     else if (income <= 164925.0) {
59         tax = 14751 + ((income-86375) * 0.24);
60     }
61     else if (income <= 209425.0) {
62         tax = 33603 + ((income-164925) * 0.32);
63     }
64     else if (income <= 523600.0) {
65         tax = 47843 + ((income-209425) * 0.35);
66     }
67     else if (income > 523600.0) {
68         tax = 157804 + ((income-523600) * 0.37);
69     }
70 }
71 tax = Math.round(tax*100)/100.0;
72 return tax;
73 }
74 }
```