You are given a **0-indexed** 2D integer array brackets where brackets[i] = [upperi, percenti] means that the ith tax bracket has an upper bound of upperi and is taxed at a rate of percenti. The brackets are **sorted** by upper bound (i.e. upperi-1 < upperi for 0 < i < brackets.length).

Tax is calculated as follows:

* The first upper0 dollars earned are taxed at a rate of percent0.
* The next upper1 - upper0 dollars earned are taxed at a rate of percent1.
* The next upper2 - upper1 dollars earned are taxed at a rate of percent2.
* And so on.

You are given an integer income representing the amount of money you earned. Return *the amount of money that you have to pay in taxes.* Answers within 10-5 of the actual answer will be accepted.

**Example 1:**

Input: brackets = [[3,50],[7,10],[12,25]], income = 10  
Output: 2.65000  
Explanation:  
Based on your income, you have 3 dollars in the 1st tax bracket, 4 dollars in the 2nd tax bracket, and 3 dollars in the 3rd tax bracket.  
The tax rate for the three tax brackets is 50%, 10%, and 25%, respectively.  
In total, you pay $3 \* 50% + $4 \* 10% + $3 \* 25% = $2.65 in taxes.

**Example 2:**

Input: brackets = [[1,0],[4,25],[5,50]], income = 2  
Output: 0.25000  
Explanation:  
Based on your income, you have 1 dollar in the 1st tax bracket and 1 dollar in the 2nd tax bracket.  
The tax rate for the two tax brackets is 0% and 25%, respectively.  
In total, you pay $1 \* 0% + $1 \* 25% = $0.25 in taxes.

**Example 3:**

Input: brackets = [[2,50]], income = 0  
Output: 0.00000  
Explanation:  
You have no income to tax, so you have to pay a total of $0 in taxes.

**Constraints:**

* 1 <= brackets.length <= 100
* 1 <= upperi <= 1000
* 0 <= percenti <= 100
* 0 <= income <= 1000
* upperi is sorted in ascending order.
* All the values of upperi are **unique**.
* The upper bound of the last tax bracket is greater than or equal to income.