

TAX LAB

Country X calculates tax for its citizens using a graduated scale rate as shown below:

1. Yearly Income: **0 - 1000**

Tax Rate: **0%**

2. Yearly Income: **1,001 - 10,000**

Tax Rate: **10%**

3. Yearly Income: **10,001 - 20,200**

Tax Rate: **15%**

4. Yearly Income: **20,201 - 30,750**

Tax Rate: **20%**

5. Yearly Income: **30,751 - 50,000**

Tax Rate: **25%**

6. Yearly Income: **Over 50,000**

Tax Rate: **30%**

Write a Python function named `calculate_tax` that will take as an argument, a dictionary containing key-value pairs of `people's names as the keys` and their `yearly incomes as the values`.

The function should return a dictionary containing key-value pairs of the same people's names as keys and their `yearly tax bill` as the values. For example, given the sample input below:

```
{
    'Alex': 500,
    'James': 20500,
    'Kinuthia': 70000
}
```

The output would be as follows:

```
{  
  'Alex': 0,  
  'James': 2490,  
  'Kinuthia': 15352.5  
}
```

The tax for James would be calculated as follows:

1. The first 1000 (1000 - 0)

Calculation: $1,000 * 0\%$

Tax: 0

2. The next 9000 (10,000 - 1,000)

Calculation: $9,000 * 10\%$

Tax: 900

3. The next 10,200 (20,200 -10,000)

Calculation: $10,200 * 15\%$

Tax: 1530

4. The remaining 300 (20,500 - 20,200)

Calculation: $300 * 20\%$

Tax: 60

5. Total Income: 20,500

Total Tax: $0 + 900 + 1530 + 60 = 2490$