

[CS 11] Prac 0d – BMI

oj.dcs.upd.edu.ph/problem/cs11prac0d

Problem Statement

John Lloyd recently lost 18 pounds of weight in just 3 weeks. This has made Payton very conscious of his weight, so he started to go on a diet. He wants to know how well he's progressing, but Payton forgot his basic arithmetic (he seems to have lost too much weight in his head)!

As Payton's friend, he wants you to make a program that will tell him if he's overweight according to the Body Mass Index (BMI). In case you don't remember, the formula for BMI is:

$$\text{BMI} = \frac{\text{Weight}}{\text{Height}^2}$$

where "Weight" is the weight in kilograms, and "Height" is the height in meters.

If Payton's BMI is at least 25 kg/m², he is overweight.

Task Details

Your task is to implement a function called `bmi_check`. This function has two parameters `weight` and `height`, both `ints`, denoting the weight in kilograms and height in meters, respectively. The function must return a `str`, which must be one of the following:

- "Go on a diet!" if Payton is overweight;
- "You are too thin!" otherwise.

Do **not** print anything on screen.

Example Calls

Example 1 Function Call

Copy

```
bmi_check(100, 2)
```

Example 1 Return Value

Copy

```
"Go on a diet!"
```

Example 1 Explanation

The BMI is 25, so Payton is overweight.

Example 2 Function Call

Copy

```
bmi_check(216, 3)
```

Example 2 Return Value

Copy

```
"You are too thin!"
```

Example 2 Explanation

The BMI is 24, so Payton is not overweight.

Constraints

When the program is run:

- The function `bmi_check` will be called at most 100100 times.
- In each function call, $1 \leq \text{Weight}, \text{Height} \leq 102001$ $1 \leq \text{Weight} , \text{Height} \leq 10^{200}$.

Scoring

- You get 4040 ❤️ points if you solve all test cases where $1 \leq \text{Weight}, \text{Height} \leq 10,000$ $1 \leq \text{Weight} , \text{Height} \leq 10,000$, and the BMI is guaranteed to be an integer when expressed in when expressed in kg/m^2 .
- You get 4040 ❤️ points if you solve all test cases where $1 \leq \text{Weight}, \text{Height} \leq 10,000$ $1 \leq \text{Weight} , \text{Height} \leq 10,000$.
- You get 4040 ❤️ points if you solve all test cases where the BMI is guaranteed to be an integer when expressed in when expressed in kg/m^2 .

- You get 4040 ❤️ points if you solve all test cases.

Thus, you can earn up to 160160 points from this problem.

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Clarifications

No clarifications have been made at this time.