

Q2. Body Mass Index (10 Marks):

Body mass index (BMI) is a measure of body fat based on weight and height that applies to adults. The formula to calculate the BMI is as follows:

$$BMI = \frac{weight (kg)}{height (m) \times height (m)}$$

With the calculated BMI value, a person can be categorised based on Table Q2.

Table Q2: BMI categories

BMI value	Weight status
Less than 20	Underweight
20 to 24.99	Healthy Weight
25 to 29.99	Overweight
30 and above	Obesity

Write a programme to

Input, in sequence, weight in kilogram (kg) and height in meter (m)

Output, in sequence, the BMI value (rounded to 2 decimal places) and the corresponding weight status

试题 2. 身体质量指数 (10 分):

身体质量指数 (Body Mass Index, BMI) 是根据个人的体重和身高来计算衡量人体胖瘦程度的一个标准。其方程式如下:

$$\text{身体质量指数 (BMI)} = \frac{\text{体重 (kg)}}{\text{身高 (m)} \times \text{身高 (m)}}$$

根据所计算出来的 BMI 值, 一个人的体重状况可以根据表 Q2 来分类。

表 Q2: BMI categories

BMI 值	体重状况
小于 20	Underweight
20 至 24.99 之间	Healthy Weight
25 至 29.99 之间	Overweight
30 或以上	Obesity

试写一程式以

依序输入 一个人的体重 (kg) 和身高 (m) 。

依序输出 此人的身体质量指数 (近似至小数后二位数), 以及相应的体重状况。

Example (例子)

Input (输入)	Output (输出)
40 1.8	12.35 Underweight
100 1.7	34.60 Obesity
80 1.8	24.69 Healthy Weight