# Problem 1 – Daily Calorie Intake

Kalinko is a junior software developer, who is mostly doing freelance work for random contractors. He has just been hired by a fitness instructor and is been tasked to create a software, which will assist the instructor in preparing healthy diets for his customers. In order to prepare the diets, the fitness instructor needs to know the necessary daily calorie intake for each of his clients. The daily calorie intake (DCI), is calculated by **multiplying the Basal Metabolic Rate (BMR) of the client, by a constant, which is determined by the number of workouts that the person does per week**. The BMR is calculated with the following formula:

**Men: BMR = 66.5 + (13.75 x weight in kg) + (5.003 x height in cm) – (6.755 x age in years)**

**Women: BMR = 655 + (9.563 x weight in kg) + (1.850 x height in cm) – (4.676 x age in years)**

Once the BMR is calculated, we can get the person's DCI, using the following table:

|  |  |
| --- | --- |
| **Number of workouts** | **Daily Calorie Intake** |
| No workouts | DCI = BMR \* 1.2 |
| 1–3 workouts per week | DCI = BMR \* 1.375 |
| 4–6 workouts per week | DCI = BMR \* 1.55 |
| 7–9 workouts per week | DCI = BMR \* 1.725 |
| Extra heavy workouts | DCI = BMR \* 1.9 |

Also, the fitness instructor that hired Kalinko, lives in the United States, which means that the weight and the height of his clients, will be given in an **Imperial format – pounds (lbs.) for the weight and inches for the height**. In order to make the BMR formulas work, Kalinko will have to **convert Imperial values into Metric values**. Assume that **1 inch has 2.54cm and 1kg has 2.2lbs**.

Your job is to help Kalinko with his first big contract and create the software for him. You will be given a person's weight in pounds (lbs.), height in inches, age, gender and number of weekly workouts, each at a separate line. Your only output, should be the person's daily calorie intake (DCI). The DCI should be **rounded down to the nearest integer number.**

**Input**

The input should be read from the console. It will consist of exactly 5 input values, each at a separate line.

1. **W – weight in pounds (lbs.)**
2. **H – height in inches**
3. **A – age**
4. **G – gender**
5. **E – workouts per week**

**Output**

* The output should be the calculated DCI. It should be a **single number, rounded down to the nearest integer number.**

**Constraints**

* The W, H, A and E inputs will be valid integers, in the range [-2,147,483,648 … 2,147,483,647]
* The G input will be a single character – 'm' for male or 'f' for female
* Allowed working time for your program: 0.25 seconds.
* Allowed memory: 16MB

**Examples**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Input** | **Output** | **Comments** | **Input** | **Output** | **Input** | **Output** |
| 154  70  27  m  0 | 2083 | 70 inches \* 2.54 = 177.8cm;  154lbs / 2.2 = 70kg;  66.5 + (13.75 \* 70) + (5.003 \* 177.8) – (6.755 \* 27) = 1736.1484 \* 1.2 = 2083.37808 | 130  63  21  f  7 | 2445 | 250  85  35  m  15 | 4698 |