## Problem 1 – 3-6-9

In **secret** services, they use very **secret** techniques to send encrypted **secret** messages. One such **secret** technique is sending **secret** texts as **secret** numbers **secretly** encoded with **secret** codes. Unfortunately the **secret** servant responsible for that particular **secret** technique is on **secret** vacation, so it is your duty to translate the **secret** messages. Since you are lazy scumbag (and that is no secret), you need to write a **secret** program, calculating the **secret** algorithm. Well, if you want, calculate it by hand but, you know, BGCoder will not be very happy!

The **secret** algorithm accepts **three numbers**, **one** of which is a **secret code**, defining a **mathematical** (don’t hate us, math is a universal language) **function** for the **other two**. Afterwards, a **magic number 3appears** in the calculations and distorts the answer. That’s all! Such a **secret**, isn’t it?

You are given three secret numbers **A**, **B**, **C**, where **B** is actually the secret code symbol.

* If the code is **3** –find the sum of **A** and **C**. Example: **A = 5**, **C = 3**, **A + C = 8**.
* If the code is **6** –find the product of **A** and **C**. Example: **A = 5**, **C = 3**, **A \* C = 15**.
* If the code is **9** –find the remainder after **A** is divided by **C**. Example: **A = 5**, **C = 3**, **A % C = 2**.

After you find the result **R** from the code transformation, if **R can be divided by 3** with **remainder 0**, find **R divided by three**. Otherwise **find the remainder after R is divided by 3**.

**For example**, if **R** is **15**, it can be divided by **3** with no remainder, so the answer is **5**. If **R** is **8**, it cannot be divided by 3, so the answer is **2**.

### Input

The input data should be read from the console.

On the first input line you will receive the positive integer **A**.

On the second input line you will receive the positive integer **B**.

On the third input line you will receive the positive integer **C**.

The input data will always be valid and in the format described. There is no need to check it explicitly.

### Output

The output should be printed on the console.

If **R** can be divided by **3** with no remainder, on the first output line you should print **R divided by 3**.

Otherwise, on the first output line you should print the **remainder after R is divided by 3**.

On the second output line, you should print **R**.

### Constraints

* **A**, **B** and **C** will be positive integers between **1** and **999999**, inclusive.
* Allowed working time for your program: **0.10** seconds. Allowed memory: **16 MB**.

### Examples

|  |  |
| --- | --- |
| **Input example** | **Output example** |
| 3  6  4 | 4  12 |
| 9  9  5 | 1  4 |