Disk Failure (disks)

Edoardo is busy setting up the servers that will host the first OIS round. However, he notices that they are very slow, so he starts investigating to find out what is wrong. It turns out some of the disks are broken and need to be replaced!

Edoardo knows that the servers are used everyday from hour A to hour B. He also knows that he will need T contiguous hours to replace the broken disks.

If Edoardo chooses when to begin the maintenance in an optimal way, what is the minimum number of hours of downtime?

> ☞ Among the attachments of this task you may find a template file `disks.*` with a sample incomplete implementation.

Input

The first line contains three integers A, B and T: the hour at which the servers start to be used, the hour at which the serves stop being used and the hours needed by Edoardo to replace the disk.

Output

You need to write a single line with an integer: the minimum number of hours of downtime of the servers.

Constraints

- $0 \leq A < B \leq 24$.
- $1 \leq T \leq 10^{12}$.

Scoring

Your program will be tested against several test cases grouped in subtasks. In order to obtain the score of a subtask, your program needs to correctly solve all of its test cases.

– **Subtask 1** (0 points) Examples.

– **Subtask 2** (50 points) $T \leq 1000$.

– **Subtask 3** (30 points) $T \leq 10^9$.

– **Subtask 4** (20 points) No additional limitations.

Examples

input	output
7 21 42	22
0 24 69	69

Explanation

In the **first sample case**, the servers are used everyday from 7:00 to 21:00 and Edoardo needs 42 hours to replace the disks. If the maintenance starts at 19:00, it will end at 13:00 two days later. In total, the servers will be down for 22 hours (2 hours the first day, 14 hours the second day, 6 hours the third day).

In the **second sample case**, the servers are used all day long, from 0:00 to 24:00. In this case, it is not important when Edoardo will start fixing the problem, as there will be 69 hours of downtime anyway.