Fibonacci Modified ☆

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We define a *modified* Fibonacci sequence using the following definition:

> Given terms t_i and t_{i+1} where $i \in (1, \infty)$, term t_{i+2} is computed using the following relation:
>
> $$t_{i+2} = t_i + (t_{i+1})^2$$

For example, if $t1 = 0$ and $t2 = 1$,

- $t3 = 0 + 1^2 = 1$,
- $t4 = 1 + 1^2 = 2$,
- $t5 = 1 + 2^2 = 5$,
- and so on.

Given three integers, $t1$, $t2$, and n, compute and print the n^{th} term of a *modified Fibonacci sequence*.

Function Description

Complete the *fibonacciModified* function in the editor below. It must return the n^{th} number in the sequence.

fibonacciModified has the following parameter(s):

- *t1*: an integer
- *t2*: an integer
- *n*: an integer

Note: The value of t_n may far exceed the range of a 64-bit integer. Many submission languages have libraries that can handle such large results but, for those that don't (e.g., C++), you will need to compensate for the size of the result.

Input Format

A single line of three space-separated integers describing the respective values of $t1$, $t2$, and n.

Constraints

- $0 \leq t1, t2 \leq 2$
- $3 \leq n \leq 20$
- t_n may far exceed the range of a 64-bit integer.

Output Format

Print a single integer denoting the value of term t_n in the modified Fibonacci sequence where the first two terms are $t1$ and $t2$.

Sample Input

```
0 1 5
```

Sample Output

```
5
```

Explanation

The first two terms of the sequence are $t1 = 0$ and $t2 = 1$, which gives us a modified Fibonacci sequence of $\{0, 1, 1, 2, 5, 27, \ldots\}$. Because $n = 5$, we return the 5^{th} term.