Destination: Together <3

John and Zizi are planning their respective autumn vacations. John has exactly n cities he plans to visit, Zizi has exactly m cities she plans to visit, and they want to have exactly c destination cities in common. Having been a couple for over two years without ever vacationing together, they used Booking.com to find a romantic final destination that appeals to both of their passions: marvelous L'viv in the Ukraine.

John and Zizi are software engineers who love creating and solving interesting problems. They want to know the number of different sequences in which they can visit their respective vacation destinations such that they visit each city exactly once *and* both meet up in L'viv as their final destination. Given n, m, and c, find and print the number of different ways they can do this.

Input Format

A single line of three space-separated positive integers denoting the respective values of n (the number of cities John plans to visit), m (the number of cities Zizi plans to visit), and c (the number of cities they both want to visit).

Constraints

- $0 < n, m < 11$
- $0 < c \leq n, m$

Output Format

Print a single integer denoting the number of possible ways they can visit each city once and meet up in L'viv for their first vacation together.

Sample Input

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3 4 2
```

Sample Output

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24
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Explanation

We know the following:

- John wants to visit $n = 3$ cities.
- Zizi wants to visit $m = 4$ cities.
- John and Zizi want $c = 2$ of the cities they visit to be the same.

Using the information above, we make these observations:

- John plans to visit $n - c = 3 - 2 = 1$ unique city.
- Zizi plans to visit $m - c = 4 - 2 = 2$ unique cities.
- There are $c = 2$ additional cities they both plan to visit.

We now know that John and Zizi want to collectively visit $1 + 2 + 2 = 5$ unique cities, but we also know that the last stop for both of them must be L'viv. There are 24 ways for John and Zizi to do this, so we print 24 on a new line.