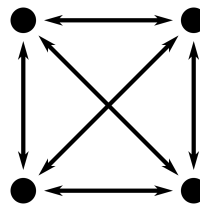# Problem 1 : Connections

Statement

In order to spy on titans , the Survey Corps set up their tracking buildings in locations where titans are frequently stationed. They need to draw out the web (schema) containing the locations, the only condition is that each building is connected to all others.

Considering the connections are bidirectional: **a** to **b** is the same as **b** to **a**, where **a** and **b** are two locations we want to connect.

And given **C**: the number of connections we have in our web, what is the number of the tracking locations in it ?

Input

The number of links (connections) **C** : integer $[1, 10^{10}]$.

Output

The total number of buildings (locations). **(Integer)**

Example

Input	Output
6	4