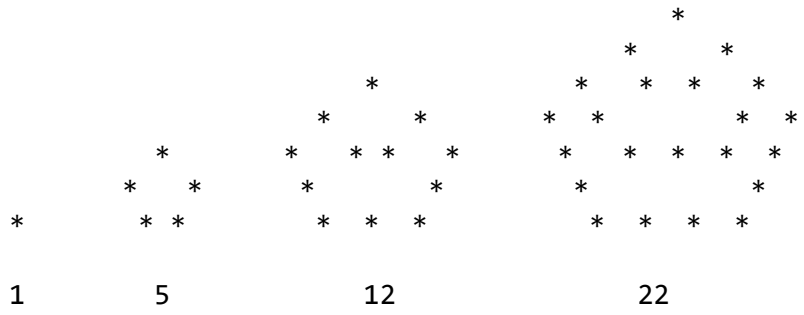
X Pentagonal Numbers

X points

Introduction

Have you ever heard of pentagonal numbers? These numbers are defined by the sequence 1, 5, 12, 22, 35, 51, ... It is also worthy to note that such pentagonal numbers can be represented following a regular geometrical arrangement of equally spaced dots.



The generalized pentagonal numbers are those of the form:

$$P_n = \frac{n * (3 * n - 1)}{2}$$

Given this formula can you write a program to find out the number of dots for a given nth pentagonal number?

Input

A single line with a positive number.

Output

A single line with the corresponding nth pentagonal number.

Example

Input

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3
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Output

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12
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