



## Problem of the Week

### Problem E

### Odd Sum

A sequence consists of 2022 terms. Each term after the first term is 1 greater than the previous term. The sum of the 2022 terms is 31 341.

Determine the sum of the terms in the odd-numbered positions. That is, determine the sum of every second term starting with the first term and ending with the second last term.



NOTE:

In solving the above problem, it may be helpful to use the fact that the sum of the first  $n$  positive integers is equal to  $\frac{n(n+1)}{2}$ . That is,

$$1 + 2 + 3 + \cdots + n = \frac{n(n+1)}{2}$$

