



# Problem of the Week

## Problem E

### Count on That

Let  $n$  be a positive integer. How many values of  $n$  satisfy the following inequality?

$$(n - 1)(n - 3)(n - 5) \cdots (n - 2019)(n - 2021) \leq 0$$

NOTE: The product on the left side of the inequality consists of 1011 factors of the form  $n - d$ , where the value of  $d$  starts at 1 and increases by 2 for each subsequent factor.

