Problem of the Week

Problem E

The Sign Switch

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

$$(n-1)(n-3)(n-5)\cdots(n-2025)(n-2027) \leq 0$$

NOTE: The product on the left side of the inequality consists of 1014 factors of the form $n-d$, where the value of d starts at 1 and increases by 2 for each subsequent factor.

