



Problem of the Week

Problem C

The Sequence of the Year

In a sequence of numbers, each number in the sequence is called a *term*. In the sequence 2, 4, 6, 8, the first term is 2, the second term is 4, the third term is 6, and the fourth term is 8.

In another sequence, the first term is 24. We can determine the next terms in the sequence as follows:

- If a term is even, then divide it by 2 to get the next term.
- If a term is odd, then multiply it by 3 and add 1 to get the next term.

By doing this, we can determine that the first three terms in the sequence are 24, 12, and 6.

What is the 2024th term in the sequence?

