JUGGLER SEQUENCE ALGORITHM

TIME COMPLEXITY ANALYSIS:

- The time complexity is determined by the **number of iterations** in the loop. The loop runs until the value becomes 1.
- In the **worst case**, the number of iterations required to reach 1 can be considered **logarithmic** with **base 2**.
- Therefore, the **time complexity** is often stated as **O(nlogn).**
- But it's important to mention that there's this idea floating around that all Juggler sequences eventually end up at 1. However, nobody has actually proven this yet. Because of this uncertainty, we **can't really figure out** the **Big O time complexity of the algorithm.**
- **The space complexity** of the Juggler sequence algorithm is **O(1)**, as it only requires a constant amount of space to store the current term in the sequence.