

313. Super Ugly Number

Difficulty : Medium

<https://leetcode.com/problems/super-ugly-number>

A **super ugly number** is a positive integer whose prime factors are in the array `primes`.

Given an integer `n` and an array of integers `primes`, return *the* n^{th} **super ugly number**.

The n^{th} **super ugly number** is **guaranteed** to fit in a **32-bit** signed integer.

Example 1:

Input: `n = 12, primes = [2,7,13,19]`

Output: 32

Explanation: [1,2,4,7,8,13,14,16,19,26,28,32] is the sequence of the first 12 super ugly numbers given `primes = [2,7,13,19]`.

Example 2:

Input: `n = 1, primes = [2,3,5]`

Output: 1

Explanation: 1 has no prime factors, therefore all of its prime factors are in the array `primes = [2,3,5]`.

Constraints:

- $1 \leq n \leq 10^5$
- $1 \leq \text{primes.length} \leq 100$
- $2 \leq \text{primes}[i] \leq 1000$
- `primes[i]` is **guaranteed** to be a prime number.
- All the values of `primes` are **unique** and sorted in **ascending order**.