

1. Enumerate the common divisor d , then connect all multiples of d . An upper bound of the running time is $O(\sum_d \frac{n}{d}) = O(n \log n)$.

For a better running time, notice that we only need to enumerate d s.t. $d > \text{threshold}$ and all divisors of $d \leq \text{threshold}$. Let $f(d)$ denote the smallest prime factor of d , we require that $\frac{d}{f(d)} \leq \text{threshold}$. Running time?

2. For each number $t = \prod_{1 \leq i \leq k} p_i^{q_i}$, connect t with each $\frac{t}{p_i}$ when $\frac{t}{p_i} > \text{threshold}$. The running time is the total number of prime divisors of all integers in $1..n$, which is $\sum_i \frac{1}{p_i} = O(n \log \log n)$.

66 / 66 test cases passed.

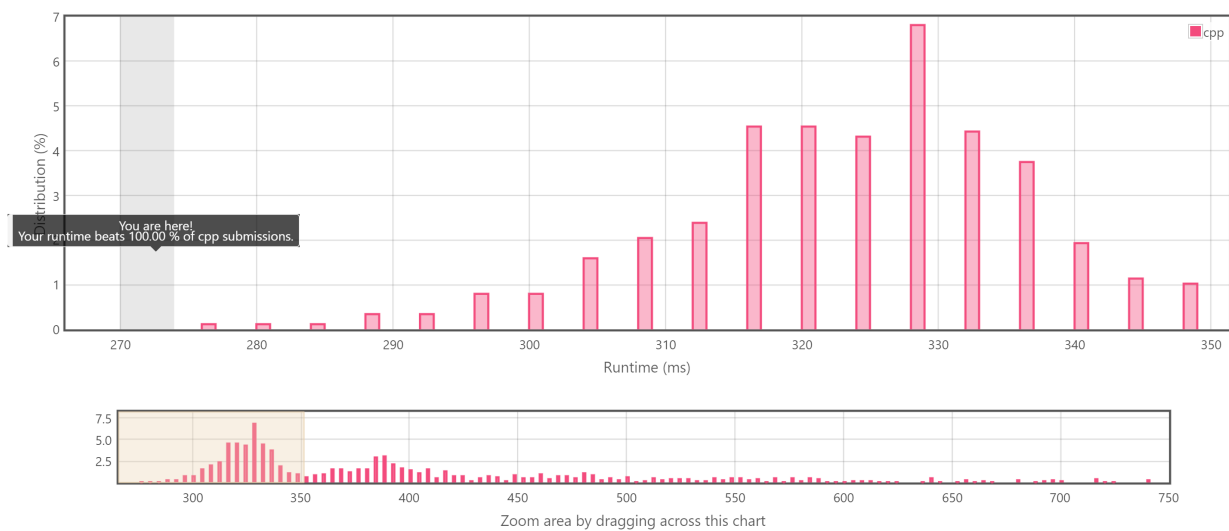
Runtime: 272 ms

Memory Usage: 64.6 MB

Status: **Accepted**

Submitted: 0 minutes ago

Accepted Solutions Runtime Distribution



References