1921. Eliminate Maximum Number of Monsters

Description

You are playing a video game where you are defending your city from a group of `n` monsters. You are given a **0-indexed** integer array `dist` of size `n`, where `dist[i]` is the **initial distance** in kilometers of the `i th` monster from the city.

The monsters walk toward the city at a **constant** speed. The speed of each monster is given to you in an integer array `speed` of size `n`, where `speed[i]` is the speed of the `i th` monster in kilometers per minute.

You have a weapon that, once fully charged, can eliminate a **single** monster. However, the weapon takes **one minute** to charge. The weapon is fully charged at the very start.

You lose when any monster reaches your city. If a monster reaches the city at the exact moment the weapon is fully charged, it counts as a **loss**, and the game ends before you can use your weapon.

Return *the **maximum** number of monsters that you can eliminate before you lose, or* `n` *if you can eliminate all the monsters before they reach the city.*

Example 1:

```
Input: dist = [1,3,4], speed = [1,1,1]
Output: 3
Explanation:
In the beginning, the distances of the monsters are [1,3,4]. You eliminate the first monster.
After a minute, the distances of the monsters are [X,2,3]. You eliminate the second monster.
After a minute, the distances of the monsters are [X,X,2]. You eliminate the third monster.
All 3 monsters can be eliminated.
```

Example 2:

```
Input: dist = [1,1,2,3], speed = [1,1,1,1]
Output: 1
Explanation:
In the beginning, the distances of the monsters are [1,1,2,3]. You eliminate the first monster.
After a minute, the distances of the monsters are [X,0,1,2], so you lose.
You can only eliminate 1 monster.
```

Example 3:

```
Input: dist = [3,2,4], speed = [5,3,2]
Output: 1
Explanation:
In the beginning, the distances of the monsters are [3,2,4]. You eliminate the first monster.
After a minute, the distances of the monsters are [X,0,2], so you lose.
You can only eliminate 1 monster.
```

Constraints:

- `n == dist.length == speed.length`
- `1 <= n <= 10^5`
- `1 <= dist[i], speed[i] <= 10^5`