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 meters of the ith 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 ith monster in meters per minute.

The monsters start moving at **minute 0**. You have a weapon that you can **choose** to use at the start of every minute, including minute 0. You cannot use the weapon in the middle of a minute. The weapon can eliminate any monster that is still alive. You lose when any monster reaches your city. If a monster reaches the city **exactly** at the start of a minute, it counts as a **loss**, and the game ends before you can use your weapon in that minute.

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:**

At the start of minute 0, the distances of the monsters are [1,3,4], you eliminate the first monster.

At the start of minute 1, the distances of the monsters are [X,2,3], you don't do anything.

At the start of minute 2, the distances of the monsters are [X,1,2], you eliminate the second monster.

At the start of minute 3, the distances of the monsters are [X,X,1], 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:**

At the start of minute 0, the distances of the monsters are [1,1,2,3], you eliminate the first monster.

At the start of minute 1, 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:**

At the start of minute 0, the distances of the monsters are [3,2,4], you eliminate the first monster.

At the start of minute 1, 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 <= 105
* 1 <= dist[i], speed[i] <= 105