3-6-9

Description

Saam-Yook-Goo, 3-6-9, is a Korean game counting numbers. Two people will count the numbers one by one starting from 1. You have to say the number aloud except the number contains 3, 6, or 9 in decimal representation. For these numbers, you have to clap your hands. In fact, you have to clap your hands the same times as the number of 3, 6, or 9 in decimal representation of your number. The one fails to follow the rules loses.

For example, 1 – 2 – CLAP (instead of 3) – 4 – 5 – CLAP (6) – 7 – 8 – CLAP (9) – 10 – 11 – 12 – CLAP (13) – 14 – ⋯ – 28 – CLAP (29) – CLAP (30) – CLAP (31) – CLAP (32) – CLAP CLAP (33) – CLAP (34) – CLAP (35) – CLAP CLAP (36) – CLAP (37) – ⋯

Students from Ethiopia and Korea met in the final battle of the International Collegiate 3-6-9 Championship (ICSC); Ethiopia team vs Korea team. In this battle, the two teams with N students compete with each other.

Ashu, a major 3-6-9-holic, discovered a prediction model of 3-6-9 game. According to Ashu's model, each student's skill is measured in 'ratings'. In this battle, N 1-on-1 duels are held, and the student with the higher rating wins the duel. If the two student's ratings are the same, Ethiopia team wins that duel because Ethiopians are awesome. Every person can enter a duel only once.

Luckily, you obtained the Korea team's ratings, and the order in which they will send each student to duel.

Duel	1	2	3	4	5	6
Korea team	3,000	2,700	2,800	2,200	2,500	1,900
Ethiopia team	2,800	2,750	2,995	1,800	2,600	2,000

Figure 1) Example of rating where n = 6

For example, if the above is the ratings of the student in each duel, Ethiopia team wins duel 2, 3, 5, and 6. But if you switch Ethiopia team's students of duel 1 and 4, Ethiopia team wins every duel except duel 1.

From this information, maximize Ethiopia team's win count by rearranging the order of Ethiopia team's students.

Input

The first line contains n, the number of students on each team. (1 ≤ n ≤ 10,000)

The second line contains n integers, which is the ratings of the Korea team's students, in the order they will enter the duels.

The third line contains n integers, which is the ratings of Ethiopia team's students.

All ratings are integers between 1 and 4000, both inclusive.

Output

Print the maximum amount of wins Ethiopia team can earn in one line.

Sample I/O

Input(s)	Output(s)
6 3000 2700 2800 2200 2500 1900 2800 2750 2995 1800 2600 2000	5
3 1 2 3 3 2 1	3
4 2 3 4 5 1 2 3 4	3