

1 Bows and Arrows

Julius Caesar, the Roman Dictator, was always intrigued by numbers.

One of his favorite past time was the 'guess-my-number' game. In this game he would have a number in his mind and his commander would have to guess the number. Each time the commander guessed a number Caesar would provide a hint that indicated how many digits in said guess match the secret number exactly in both digit and position (called "Arrows") and how many digits match the secret number but are located in the wrong position (called "Bows"). The commander would use successive guesses and hints to eventually derive the secret number.

Write a function to return a hint according to the secret number and commander's guess, use A to indicate the Arrows and B to indicate the Bows.

Please note that both secret number and Commander's guess may contain duplicate digits.

Input/Output		
Input	Output	Comments
1806 6801	2A2B	<ul style="list-style-type: none"> 2line of input having same size, 1 output. -first line secret number -second line commander guess. • 2Arrow and 2 Bows. The Arrow is 8, the bows are 1 and 6. • Our base array is 1806, comparing it with the second array, we see that two digits are at the same index, 8,0 so 2 Arrows. • Though there are 2 more digits that are common between both arrays, their indices do not match so 2 Bows
1124 0111	1A1B	<ul style="list-style-type: none"> • The 1st 1 in commander's guess is arrow, the 2nd or 3rd 1 is a bow (same explanation as above)

2 Andromeda and DeathStar

Andromeda galaxy has many solar systems, each solar system can have many planets in it.

But DeathStar is on the prowl and will consume atleast few planets in each solar system.

There are N solar systems. The guardians-of-galaxy are gone and will come back in H hours.

If DeathStar can decide it's planets-per-hour consuming speed K. Each hour, it chooses some solar systems , and consumes K planets from that solar system. If a solar system has less than K planets, it consumes all of them instead, and won't consume any more planets during this hour.

DeathStar likes to consume slowly, but wants to complete all the planets before the guardians return.

Return the minimum integer K so that the DeathStar can consume all the planets within H hours.

Input/Output

Input	Output	Comments
3 6 7 11 8	4	<ul style="list-style-type: none"> lets say $s=[3,6,7,11]$ $s[0]$ in first hour, no planets left $s[1]$ in second hour, 2 planets are left $s[1]$ in third hour , no planets left $s[2]$ in fourth hour , 3 planets are left.. so on and so forth
30 11 23 4 20 5	30	<ul style="list-style-type: none"> there are 5 solar systems and we have 5 hours, so we took the solar system with max planets, which is 30 as k
30 11 23 4 20 6	23	Same as first test case

Note:

$\text{solar-systems.length} \leq H$