Officer Operation

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

The N officers of the Programming Police are assembling a special task force to break the Cyber Criminal's cryptography, which requires a certain set of skills. These skills are denoted by upper and lower case letters (a-z and A-Z), giving a total of 52 possible skills. The mission is denoted by a string consisting of some subset of these characters. Each person's skills are similarly described by such a string. Please find how many groups of size K can do the mission.

Input

Line 1: Two space-separated integers N and K
Line 2: A string representing the mission
Line 3..N+2: A string representing the skills

Output

Line 1: How many groups satisfy the conditions

Example

standard input	standard output
6 2 CbA EA DbCA Ab CE ADC Cb	10

Note

$2 \leq N \leq 100$
$1 \leq K \leq 4$ Each person has at least one skill. The skills are not sorted.