XXVII NATIONAL OLYMPIAD IN INFORMATICS
22.01.2011
Group B (juniors)

Task B1. Cinema

An easy task at first, choosing where to sit in the cinema is not always such a trivial problem. For example in order to be guaranteed some privacy with her boyfriend during a movie, Elleonora has decided to choose their places in such a way, that they are in a rectangle with certain size of unoccupied seats. You decide to help her by writing a program that finds in how many ways that can be done.
You will be given the size of the movie hall – **N** rows with **M** seats each, also the requirements of Elly – the dimensions of the unoccupied rectangle – at least **R** rows with at least **C** columns each. Calculate how many (eventually overlapping) such rectangles are there?

Input
On the first line of the standard input you will be given **N** and **M** – the number of rows and the number of columns in the movie hall. On the second line will be **R** and **C** – the number of rows and the number of columns of the rectangle, that Elly wants to be free. N rows with M symbols each follow, each of which is **"."** for an empty seat and **"#"** for a taken one.

Output
On the only line of the standard output print one integer – the number of rectangles with size R by C that can be placed on empty seats.

Constrains:
$1 \leq R \leq N \leq 100$
$1 \leq C \leq M \leq 100$

Sample Input:

Sample input	Sample output
8 13 3 5 ..#...#....#. #..... .....#..... #..... ..#.....#... ...#.....#... .....#..... .....#.....	4

Clarifications:
The movie hall has 8 rows and 13 columns. Elly wants the rectangle, where they will seat, to have at least 3 rows and 5 columns. There are 4 different rectangles that fulfill her requirements. Their upper left corners are with coordinates (2, 2), (2, 8), (2, 9), and (4, 5), where the coordinates are given as (row, column). Note that the rectangles should not be rotated in any way.