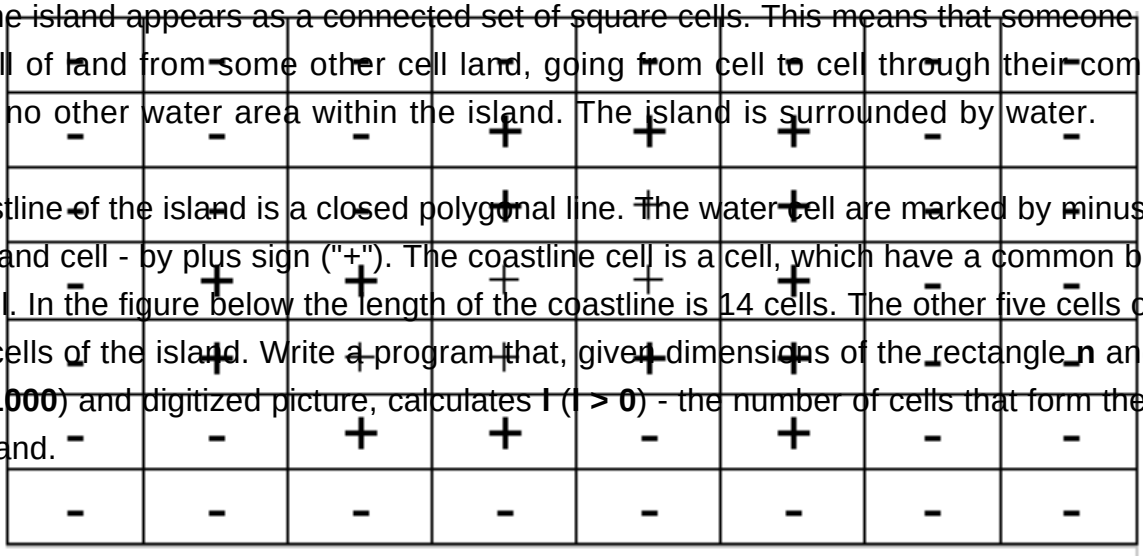
2105 - Island Coast

Description

On February 30th this year astronauts from the International Space Station flew over the Pacific Ocean and took a picture, on which was discovered a previously unknown island. On the digitized picture the island appears as a connected set of square cells. This means that someone can reach some cell of land from some other cell land, going from cell to cell through their common side. There is no other water area within the island. The island is surrounded by water.



The coastline of the island is a closed polygonal line. The water cell are marked by minus sign ("-"), and the land cell - by plus sign ("+"). The coastline cell is a cell, which have a common border with water cell. In the figure below the length of the coastline is 14 cells. The other five cells of land are internal cells of the island. Write a program that, given dimensions of the rectangle **n** and **m** (**3 <= n,m <= 1000**) and digitized picture, calculates **l** (**l > 0**) - the number of cells that form the coastline of the island.

Input specification

The first line of input file contains two integers **n** and **m**. The following **n** lines contain **m** characters (the char "-" - cell with water, and the "+" - cell with land).

Output specification

The output file should consist of one integer **l** - the number of cells that form the coastline of the island.

Sample input

```
7 8
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---++---
---++---
-+++++--
-+++++--
--++-+--
--------
```

Sample output

```
14
```

Hint(s)

Source	NEERC Central Subregional Contest, October 18, 2012
Added by	**ymondelo20**
Addition date	2012-11-05
Time limit (ms)	50000
Test limit (ms)	1000
Memory limit (kb)	256000
Output limit (mb)	64
Size limit (bytes)	30000
Enabled languages	Bash C C# C++ Java Pascal Perl PHP Python Ruby Text