Picking up coins   P69865_en

Cinquè Concurs de Programació de la FME (2008-04-29)

In a $n \times m$ board there are golden coins and some traps. There are also some pieces: bishops and knights, which move according to chess rules. The pieces can move as many times as you wish, and can cross any square that does not have a trap, even if occupied by another piece. Coins dissapear when some piece picks them up.

Write a program that prints the total number of coins that can be picked up.

Input

Input includes several cases. Each case consists of a line with n and m, followed by n lines with m characteres each one. A 'B' indicates a bishop. A 'K' indicates a knight. A 'T' indicates a trap. A dot indicates an empty square. A digit indicates a number of golden coins. Both n and m are between 1 and 200.

Output

For each case, print a line with the number of golden coins that can be picked up.

Sample input

```
5 7
8.T...T
.B1..T.
T...T..
...4.2.
..T..9.

7 6
.K.T..
.....3
9..T..
..8.T.
......
...1.K
.K....

1 1
.

1 10
99K9999B99

3 3
KB.
0.7
KB.
```

Sample output

```
14
18
0
0
7
```

Problem information

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Generation : 2013-09-02 14:45:36