

Problem I: Finding the Safest Path

Wally, a fellow trainer who is younger than you has a problem. He often has all of his Pokemon in poor health and needs to find his way to the Pokemon center. The Pokemon center provides healing to Pokemon who have fainted or are low on health. The problem is, there are often areas with tall grass on the way to the Pokemon center.



Wild Pokemon hide in tall grass and attack trainers as they walk through. Additionally, many wild Pokemon like to rest near trees. While walking in tall grass near a tree, Wally is twice as likely to be attacked by a wild Pokemon. Wally wants you to help him find a way to the Pokemon Center minimizing his chances of being attacked by wild Pokemon.

Wally can only move in the four cardinal directions.

Input

Input consists of a 10x10 2D grid of characters representing the area Wally must travel. The following characters are used for the following meanings:

Character	Meaning
(space)	A path.
^	Tall grass.
T	A tree (which Wally cannot walk over).
W	Wally's starting position.
P	The Pokemon center.
X	An impassable space (such as water or a building).

Output

Output should be a numerical score representing Wally's minimal chance of being attacked by a wild Pokemon. For each space of tall grass Wally must walk through, add one to the score.

If the space of tall grass is next to a tree (in any of four cardinal directions), an additional one is added to the score.

If the Pokemon center is completely blocked by trees or impassable spaces, print "Impossible to get to the Pokemon Center!".

Sample Input

```
^^^^^^^^^^
^P  ^^T^^^
^^^^^^^^^^
^^T^^^^^^^
XX^^^^ ^^^
XX^^^^ ^^^
^^^    ^^^
^^^  ^^^^^
^^^  ^^^^^
^W  ^^T^^
^^^^^^^^^^
```

Sample Output

Score is 5.