Time limit: 13.0s Memory limit: 256M

Kids are spending far too much time on their computers nowadays. Once in a while, they have to go to the washroom. Given a floor map of a kid's home, output the minimum number of steps it will take the kid to get to the washroom. If the washroom cannot be reached in fewer than 60 steps (a step is one move in a north, south, east, or west direction), then output #notworth.

Your input will start with an integer t ($1 \le t \le 5000$), where t is the number of test cases, and then followed by l and w ($2 \le l, w \le 50$) where l and w are the length and width, respectively, of each floor map. The next w lines will contain l characters, each one of the following:

- 0 is open space (you can pass through these)
- X is wall (you can't pass through these)
- C is computer (this is where you start)
- W is washroom (this is where you want to go)

Sample Input

2

Sample Output

#notworth

8