

Chess

Input File: chess.txt

You want to play chess with a friend who doesn't know how the pieces move. You want to teach them how the queen moves by placing a white queen on a standard 8-by-8 square chessboard with a number of white pieces on it.

A queen can move to any square on a row, column, or diagonal it's on, as long as the move does not place it on the square of another piece and does not require it to jump over any piece.

Given a board of pieces, you would like to know to how many squares the queen can move.

Input:

An integer, n , which is the number of boards.

n boards, which are sets of 8 lines of 8 characters, "0" representing an empty square, "X" representing an occupied square, and "Q" representing the queen, with an empty line separating different boards.

Output:

For each board, print the number of squares the queen can move to.

Example Input:

```
1
00000000
00000000
00X00000
000QX000
00000000
00000000
000X0000
00000000
```

Example Output:

```
18
```