

Problem K. Kid's Game

Input file: *standard input*
 Output file: *standard output*
 Time limit: 2 seconds
 Memory limit: 1024 mebibytes

Aubergine and Scallion are playing a game on an $r \times c$ grid board. Each cell in the grid contains one of the characters 'G', 'Z', 'D', 'P', or 'X'.

In this game, Scallion and Aubergine take turns performing their moves, with Scallion going first.

During his turn, Scallion can choose two horizontally adjacent tiles where the left tile is 'G' and the right tile is 'Z', and he can change those two tiles to 'D' and 'P', respectively. During her turn, Aubergine can choose two vertically adjacent tiles where the upper tile is 'D' and the lower tile is 'P', and she can change those two tiles to 'G' and 'Z', respectively.

If the player whose turn it is has a way to change tiles, they must do it. The player who cannot make a move on their turn loses the game. If the game does not end after 10^{100} turns, it is declared a draw.

Aubergine and Scallion will play the game to the best of their abilities. This means that if a player has a winning strategy, they will choose to win; if they do not have a winning strategy but can force a draw, they will choose to draw.

Given the game board, write a program to determine the winner of the game.

Input

The first line contains two integers, r and c : the height and width of the board ($2 \leq r, c \leq 2500$).

Each of the next r lines contains c characters without spaces: the contents of the board. Each character is either 'G', 'Z', 'D', 'P', or 'X'.

Output

If Aubergine wins when both players play optimally, print "Aubergine". If Scallion wins, print "Scallion". If the game ends in a draw, print "Draw".

Examples

<i>standard input</i>	<i>standard output</i>
3 3 GZX PXG XGZ	Scallion
2 2 GZ PD	Aubergine