

Assignment 4 - counting islands

You are given a 2-dimensional map of tiles. Each tile is either land or water. You have to write a function that counts the number of islands.

Two tiles belong to the same island if they are both land and are adjacent horizontally or vertically, but not diagonally.

The input to your function is the number of rows, number of columns, and a 2-dimensional array of booleans, where false means water and true means land. The function should simply return the number of islands.

Visual example where F (false) is water and T (true) is land, each island has a separate color and the correct answer is 3:

F	T	F	T
T	T	F	F
F	F	T	F
F	F	T	F