

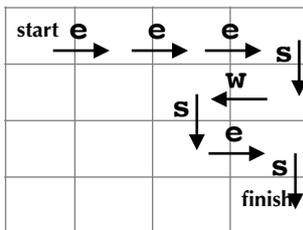
### Question 5: Backtracking: All Paths from Start to Finish (15 points)

Given a `Grid<bool> g`, write the function `allPaths` that returns a `Vector<string>` of all possible paths to traverse from the top left corner of the grid (`row=0, col=0`) to the bottom right corner of the grid (`row=g.numRows()-1, col=g.numCols()-1`), *without re-visiting any grid locations*. A path string is defined as a string of compass directions, 'n', 'e', 's', and 'w' corresponding to north, east, south, and west.

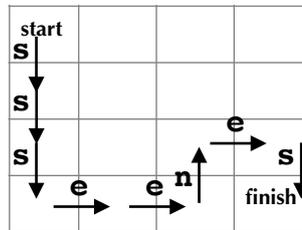
```
Vector<string> allPaths(Grid<bool> &g);
```

You are allowed to create any helper functions you need, and your solution should recursively produce all possible paths as described.

For example, for a 4x4 grid below, the path "eeeswses" is drawn on the left grid, and the path "ssseenes" is drawn on the right grid.



"eeeswses"



"ssseenes"

Notes:

1. The initial Grid passed into the function will have all of its elements marked as "false".
2. The Grid is guaranteed to be at least 1x1 in size (and a 1x1 grid has "" as the path).
3. You should probably use the boolean values in the grid to mark where you have been in the grid as you complete your recursive function. A particular path should not revisit any grid locations.
4. You must use recursion to receive full credit.