Numerical PDE HW 5

Finally more Finite Element (FE) stuff

1. For the Dirichlet problem (D) on p26 with with a generic function $f[x, y]$ write code to set up the piecewise linear FE problem 1.16. for a domain specified by a pair of files of the "node and element" form from the previous HW and a generic function f[x,y] with the Dirichlet boundary nodes and values identified by a third argument of $\mathbb{R}^{p \times 2}$ with the first argument of each row identifying the boundary node and the second the value at that node.

2. Use this code to produce and plot a decent looking solution to (D) with $f = \text{Sin}[x\,y + y^2]$ on the segment of the unit circle in the first quadrant.