EXTRA CREDIT PROBLEM #2 Math 6014

Let T_1 and T_2 be two spanning trees of a 2-connected graph G. Prove that T_1 can be transformed to T_2 through a sequence of intermediate trees, each arising from the previous one by deleting an edge incident with a vertex of degree one in the tree and adding another edge of G.

Instructions: Homework rules apply, including an honor pledge, except that you may collaborate with students in the same class by submitting a joint paper. A paper with k authors will earn each author 1/k of the credit. Only complete solutions will be accepted. To claim credit please submit a pdf file by e-mail on or before October 31.