

NOTE

## SPANNING TREES WHOSE STEMS HAVE A BOUNDED NUMBER OF BRANCH VERTICES

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### Abstract

Let  $T$  be a tree, a vertex of degree one and a vertex of degree at least three is called a leaf and a branch vertex, respectively. The set of leaves of  $T$  is denoted by  $Leaf(T)$ . The subtree  $T - Leaf(T)$  of  $T$  is called the stem of  $T$  and denoted by  $Stem(T)$ . In this paper, we give two sufficient conditions for a connected graph to have a spanning tree whose stem has a bounded number of branch vertices, and these conditions are best possible.

**Keywords:** spanning tree, stem, branch vertex.

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