such that it has a fundamental branch B_0 isomorphic to B_1 and containing a vertex $v \in I_{\gamma(T)}(T_0)$ such that if we delete v from B_0 we obtain a branch isomorphic to B_2.

We say that $B \in X$ is extraordinal if simultaneously (a) there is no $B' \in X$ such that $B' \to B$, (b) there is $B'' \in X$ such that $B \to B''$, and (c) $g(B, T_0) = g(B)$, for any $T_0 \in R$. If $B \in X$ fulfils (a), then it is isomorphic to a focus branch B_0 of T; if moreover B fulfils (b), then B_0 has at least two edges and it contains a γ-vertex. It is easy to see that if B is extraordinal then all focus branches of T which contain any γ-vertex are isomorphic to B; thus X contains at most one extraordinal branch.

By G we denote the directed graph with the vertex set X which is defined by the binary relation $\to$. Obviously, G is acyclic. Every vertex B of G is evaluated by the positive integer $g(B)$. Now, we define a new evaluation $h(B)$, for every $B \in X$, as follows: (i) if B is extraordinal, then $h(B) = g(B) + 1$; (b) if B is not extraordinal and if there is no $B' \in X$ such that both $B' \to B$ and $h(B') \neq 0$, then $h(B) = g(B)$; (c) if B is not extraordinal and if there is $B' \in X$ such that $B' \to B$ and $h(B') \neq 0$, then $h(B) = g(B) - 1$. As G is acyclic, $h(B)$ is uniquely determined for every $B \in X$.

Let $B \in X$. Then B is isomorphic to no focus branch of T if and only if $g(B) = 1$ and there is $B' \in X$ such that $B' \to B$ and B' is isomorphic to a branch of T. B is isomorphic to exactly $n \geqq 1$ focus branches of T if and only if either (a) B is extraordinal, and $g(B) = n - 1$, or (b) B is not extraordinal, $g(B) = n$, and there is no $B' \in X$ such that $B' \to B$ and B' is isomorphic to focus branch of T, or (c) B is not extraordinal, $g(B) = n + 1$ and there is $B' \in X$ such that $B' \to B$ and B' is isomorphic to any focus branch of T. By induction we have the result that every $B \in X$ is isomorphic to exactly $h(B)$ focus branches of T. As every focus branch of T is isomorphic to some $B \in X$ and since we know the number of foci of T, then T can be reconstructed. The case when $|F(T)| = 1$ is obvious. If $|F(T)| = 2$, then T has exactly two focus branches; they have one common edge joining the foci.

References

[1] *J. A. Bondy:* On Kelly's congruence theorem for trees, Proc. Cambridge Philos. Soc. *65* (1969), 387—397.

[2] *F. Harary, E. M. Palmer:* The reconstruction of a tree from its maximal proper subtrees, Canad. J. Math. *18* (1966), 803—810.

[3] *P. J. Kelly:* A congruence theorem for trees, Pacific J. Math. *7* (1957), 961—968.

[4] *B. Manvel:* Reconstruction of trees, Canad. J. Math. *22* (1970), 55—60.

[5] *O. Ore:* Theory of Graphs, Amer. Math. Soc. Colloq. Publ. Vol. 38, Providence 1962.

Author's address: 116 38 Praha 1, nám. Krasnoarmějců 2 (Filosofická fakulta Karlovy university).