Kezlan, Thomas P.

A commutativity theorem involving certain polynomial constraints. (English) Zbl 0735.16021

Math. Jap. 36, No. 4, 785-789 (1991).

It is shown that if n is a positive integer and R is an associative ring with unity, having the property: (*) given x, y in R there exists an integer $m = m(x, y) > 1$ such that $[xy - y^m x^n, x] = 0$ then R must be commutative. If we consider m independent of x and y, we obtain a theorem which has been proved by *M. A. Quadri* and *M. Khan* [Math. Jap. 33, 275-279 (1988; Zbl 0655.16021)]. The case in which both m and n are allowed to depend on x and y remains open.

Reviewer: M.Guţan

MSC:

16U70	Center, normalizer (invariant elements) (associative rings and algebras)	Cited in **1** Review
16U80	Generalizations of commutativity (associative rings and algebras)	Cited in **2** Documents

Keywords:

commutativity; polynomial constraints