1023-16-490 Cayley A. Pendergrass\* (cpendergrass@albion.edu), Albion College, Department of Mathematics and Computer Scienc, Albion, MI 49224, and John Farina. The Primeness of Just Infinite Algebras.

In "Branch Rings, Thinned Rings, Tree Enveloping Rings," available at arxiv.org/pdf/math.RA/0410226, Bartholdi defines a particular class of just infinite algebras and demonstrates various properties of these examples. One such property, which is tedious to prove for his specific examples, is primeness.

We prove that, in fact, *all* just infinite algebras are prime. We then consider two corollaries of this theorem; one suggests a weaker definition of just infinite for finitely generated algebras and the other examines the specific case of just infinite algebras which also satisfy a polynomial identity. (Received September 14, 2006)