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Jack Maney and **Vadim Ponomarenko*** (vadim123@gmail.com), Department of Mathematics and Statistics, San Diego State University, 5500 Campanile Drive, San Diego, CA 92182-7720. *A new factorization invariant.*

In a (commutative cancellative) monoid, or more generally an integral domain, unique factorization into irreducibles may not hold. Some well-known invariants that measure this are elasticity, catenary degree, and tame degree. The authors propose a new invariant, diversity, that captures different factorization properties. (Received September 10, 2007)