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Andrea M. Frazier* (frazier@math.uiowa.edu), 15 MacLean Hall, Iowa City, IA, IA 52245,
and **Suzanne Hamon**, 755 S. Price Rd, St. Louis, MO 63124. *Congruence modulo n τ -relations
and τ -factorization.*

Let D be an integral domain with unit group $U(D)$ and $D^\# = D \setminus (U(D) \cup \{0\})$; let τ be a (symmetric) relation on $D^\#$. For $a \in D^\#$, we define a factorization $a = \lambda a_1 \cdots a_n$ to be a τ -factorization of a if $\lambda \in U(D)$, $a_i \in D^\#$, and $a_i \tau a_j$ for $i \neq j$. We examine the τ -factorization properties which arise from defining $a \tau b$ iff $a \equiv b$ modulo n for $a, b \in \mathbb{Z}$. (Received September 21, 2005)