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Richard Erwin Hasenauer* (hasenaue@nsuok.edu), **Kailey Earlywolf**, **Bethany Kubik** and **Chris Sherman**. *τ -elasticity in the integers*. Preliminary report.

A factorization of an integer $b = \pm a_1 a_2 \cdots a_k$ is said to be τ_n -factorization if $a_1 \equiv a_2 \equiv \dots \equiv a_k \pmod{n}$. An element is a τ_n -atom if all of its τ_n -factorizations are of length one. The ratio of the longest factorization to the shortest factorization is called elasticity. For a given n , we explore the elasticity of all integers that factor into a product of τ_n -atoms. (Received January 27, 2020)