Problem N.3 - Zero Divisors of $\mathbb{Z}_m$
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Let $n \in \mathbb{Z}_m$ and $n \neq 0$. Multiply n by each other nonzero element in $\mathbb{Z}_m$ modular m. If $n * i \pmod{m} = 0$ for some nonzero $i \in \mathbb{Z}_m$, then n and i are zero divisors.