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Thomas G. Lucas* (tglucas@uncc.edu), Department of Mathematics & Statistics, University of North Carolina Charlotte, 9201 University City Blvd, Charlotte, NC 28223. *The Clique Ideal Property.*

For a commutative ring R , one can form a graph $\Gamma(R)^*$ where the vertices are the zero divisors of R (including 0) and the edges are the pairs $\{a, b\}$ where $ab = 0$ with $a \neq b$. A clique of $\Gamma(R)^*$ is a nonempty subset X such that $ab = 0$ for all $a \neq b$ in X . If R is a finite ring, there is always a maximum clique of $\Gamma(R)^*$ – a clique X such that $|X| \geq |Y|$ for all cliques Y . We say that a finite ring R has the clique ideal property if each maximum clique of $\Gamma(R)^*$ is an ideal of R . For each positive integer $n > 1$, the ring $R = \mathbb{Z}_n[x]/(x^2)$ is a finite ring with the clique ideal property. In contrast, \mathbb{Z}_n has the clique ideal property if and only if n is either a perfect square or a prime. (Received July 23, 2012)