Let $G \Box H$ denote the Cartesian product of $G$ with $H$. Let $P$ and $C_k$ denote the Petersen Graph and cycle on $k$ vertices, respectively. We bound the domination number of the Cartesian product of the Petersen Graph with cycles, $\gamma(P \Box C_k)$, by a simple function of $k$, for all $k \geq 3$. We conjecture that the domination number of $P \Box C_k$ meets this bound. We give a similar bound and conjecture for the Cartesian product of the Grötzsch graph with cycles. (Received September 16, 2008)