Let $R$ be a local Noetherian ring with residue field $k$ and let $I$ be an ideal of $R$. We say that $J \subseteq I$ is a reduction of $I$ if there exists an integer $r > 0$ such that $I^{r+1} = JI^r$. When $k$ is an infinite field, $I$ has either infinitely many proper reductions or $I$ is basic, i.e. $I$ is the only reduction of itself. When $k$ is finite that is not necessarily the case. We will discusss the existence or lack of proper reductions and the number of generators needed for a reduction in the case $k$ is a finite field. This is joint work with Bruce Olberding. (Received July 11, 2017)