In this talk, we will study generalized quadrangles from the perspective of their point-line incidence graphs. In particular, the incidence graphs of classical generalized quadrangles of odd prime power order $q$ contain induced bipartite subgraphs that may be defined algebraically; indeed, defining partite sets $P = \mathbb{F}_q^3 = L$, we say vertices $(a_1, a_2, a_3) \in P$ and $[x_1, x_2, x_3] \in L$ are adjacent if and only if $a_2 + x_2 = a_1 x_1$ and $a_3 + x_3 = a_1 x_1^2$. This subgraph has girth eight. Of particular interest is whether it is possible to alter these equations to create a nonisomorphic girth eight graph. Success could illuminate a strategy for constructing new generalized quadrangles. (Received January 27, 2014)