In a maker-breaker game, we fix a base set $X$ and a collection of winning subsets $F$. The players Maker and Breaker alternate choosing elements from $X$ and Maker wins if he eventually chooses all the elements in some subset in $F$. Otherwise Breaker wins. We consider the problem when $X$ is the elements of a poset $P$ and $F$ is the collection of chains in $P$ of a given length. When the poset $P$ is a product of chains, we determine precisely the maximum length chain in $P$ that Maker can attain.

We also study the problem when the poset is the $d$-dimensional $k$-wedge, $W^d_k = \{(x_1, x_2, \ldots, x_d) : 0 \leq x_i \text{ and } \sum_{i=1}^d x_i < k\}$, where $y \leq_{W^d_k} z$ if $y_i \leq z_i$ for all $i$. In this case, we add the restriction that Maker must choose the elements of $W^d_k$ in the order in which they appear in his winning chain. We show that for $W^2_k$, Maker can attain a chain of size $\lceil 2k/3 \rceil$, but no larger. In contrast, we use connections with Conway’s Angel/Devil game to show that when $d \geq 14$, Maker can attain a chain of maximum size. (Received September 07, 2009)