Abstract. Let $S = K[x_1, \ldots, x_n]$ be the polynomial ring in $n$-variables over a field $K$ and $I$ a monomial ideal of $S$. According to one standard primary decomposition of $I$, we get a Stanley decomposition of the monomial factor algebra $S/I$. Using this Stanley decomposition, one can estimate the Stanley depth of $S/I$. It is proved that $\text{sdepth}_S(S/I) \geq \text{size}_S(I)$. When $I$ is squarefree and $\text{bigsiz}_S(I) \leq 2$, the Stanley conjecture holds for $S/I$, i.e., $\text{sdepth}_S(S/I) \geq \text{depth}_S(S/I)$. 