This paper shows that in dimensions $n \geq 2$, for any partition of the set of points in the standard unit $n$-sphere $P_n$ in $\mathbb{R}^{n+1}$ into $(n + 3)$ or more nonempty sets, there exists a hyperplane in $\mathbb{R}^{n+1}$ that intersects at least $(n+2)$ of these sets. This result is used to prove a result in inversive geometry. A mapping $T : S^2 \to S^n$, for $n \geq 2$, not assumed continuous or even measurable, is called weakly circle-preserving if the image of any circle is contained in some circle in the range space $S^n$. If such a map $T$ has a range $T(S^2)$ in circular general position, meaning that any circle in $S^n$ misses at least two points of $T(S^2)$, then $T$ must be a Möbius transformation of $S^2$. (Received March 24, 2015)