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In a finite projective plane Π of order q, let K be a non-empty set of points; $A \in K$ is called a nucleus of K if no line through A meets K in more than two points. Let N(K) denote the set of all nuclei of K. Question: determine the integer function n(q) so that $N(K) = K$ when $|N(K)| > n(q)$. In this paper, the case $|K| > q + 2$ is considered, and it is shown that n(q) equals the integer part of $(q + 1)/2$ when K is a $(q + 1)$-set in PG(2,q). Further results are obtained about $(q + 1)$-sets K where $K \setminus N(K)$ consists of collinear points.

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