Piotr Minc* (mincpio@auburn.edu), Dept. of Mathematics, Auburn University, Auburn, AL 36849. Choosing A Sheltered Middle Path.

We say that a point $x \in \mathbb{R}^{2}$ is sheltered by a continuum $S \subset \mathbb{R}^{2}$ if $x$ does not belong to the unbounded component of $\mathbb{R}^{2} \backslash S$. Suppose that points $a$ and $b$ are the endpoints of each of three arcs $A_{0}, A_{1}$ and $A_{2}$ contained in $\mathbb{R}^{2}$. We prove that there is an arc $B \subset A_{0} \cup A_{1} \cup A_{2}$ with its endpoints $a$ and $b$ such that each point of $B$ is sheltered by the union of each two of the arcs $A_{0}, A_{1}$ and $A_{2}$. (Received February 25, 2004)

