<u>Homework #16</u>- Hand in no later than 2:41 p.m., Friday, July 7.

Prove or give a counterexample:

Let X be a subspace of the plane with the usual pseudometric. Suppose $\boldsymbol{F}$ is a finite collection of closed subsets of X such that $X = \quad \boldsymbol{F}$. Then there is a $\delta > 0$ so that if $A \quad X$ has diameter $< \delta$, then $\bigcap\{F \quad \boldsymbol{F} : F \cap A \neq \quad \} \neq \quad$.