bases and perfect symmetric structures is one-one. Note that $A < B$ means that $B$ contains the neighborhood of $A$ of order $\leq \varepsilon$.

The passage from uniformity to proximity to topology goes this way. If $S$ is perfect and symmetric, then $\{<\} = \{\cup S\}$ is (simple and) symmetric; and if $A <' B$ means that $\{x\} < B$ for all $x \in A$, then $\{<'\}$ is (simple and) perfect.

The familiar discrete structures are obtained from the family $\{\subset\}$. The usual uniformity on $R$ is obtained from $\{<'; \varepsilon > 0\}$ [reviewer's notation], where $A <' B$ means $\text{dist}(A, R - B) \geq \varepsilon$. (The associated relations $U'$ of (f) then satisfy: $x U' y$ if and only if $|x - y| < \varepsilon$.)

**LEONARD GILLMAN**


Prove or disprove the following conjecture suggested by J. Selfridge (oral communication). For any graph $G$ with 9 points, $G$ or its complementary graph $\overline{G}$ is nonplanar. Experimental evidence appears to support this conjecture, which in turn would imply the validity of the conclusion for any graph with at least 9 points. A simple argument using Euler's polyhedron formula serves to prove that if $G$ is a graph with $p$ points and $q$ lines for which $q > 3p - 6$, then $G$ is nonplanar. This proves the conclusion of the conjecture for all graphs with at least 11 points. For graphs $G$ with 9 or 10 points, it is still open. (Received August 15, 1961.)