A graph is said to be totally supercompact, if for any two vertices x and y there is a vertex $z \neq x, y$ joined to one of them but not to the other. In this paper, (i) three problems of G. L. Chia and O. K. Lim on totally supercompact selfcomplementary graphs are solved; (ii) we determine the maximum number of edges $f(n, p)$ in a totally supercompact graph of order n without K_p, solving a problem of Hoffman. We also solve a generalization of this problem for so-called k-asymmetrical graphs.

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