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As a generalization of the line graph, the super line graph of index  $k$  of a graph  $G$  has the sets of  $k$  edges of  $G$  as its vertices, with two being adjacent if some edge in one of the sets is adjacent in  $G$  to some edge in the other set. After reviewing some of the properties on super line graphs, we will focus on a simple question (one that does not have a simple answer) in number theory: Given two integers  $m \geq 2$  and  $n \geq 2$ , what is the maximum of  $\min\{ij, (m-i)(n-j)\}$  with  $1 \leq i \leq m-1$  and  $1 \leq j \leq n-1$ ? Although we do not have a complete solution, we have solutions for some interesting cases. The problem that this arises from is to find the minimum index for which the super line graph of a graph is complete. (Received July 23, 2014)