

The construction starts with a graph  $H$  with vertex set  $V(H) = \{x_1, x_2, \dots, x_n\}$  and constructs a new graph  $G$  with vertex set  $V(G) = \{x_1, x_2, \dots, x_n\} \cup \{y_1, y_2, \dots, y_n\} \cup \{z\}$  and edge set  $E(G) = E(H) \cup \{x_i y_j \mid x_i x_j \in N(x_j)\} \cup \{y_i z \mid 1 \leq i \leq n\}$ .

Informally,  $G$  is constructed from  $H$  by making a copy of  $H$  and a second copy of all the vertices of  $H$ , namely  $\{y_1, y_2, \dots, y_n\}$ , and defining  $N(y_i) = N(x_i)$ . Then adding one last vertex  $z$  adjacent to all the vertices  $y_i$ 's.