List of Symbols

\[ G = (V, E) \quad \text{Graph with vertex set and edge set.} \]

\[ E(G) \quad \text{Edge set of graph } G. \]

\[ V(G) \quad \text{Vertex set of graphs } G. \]

\[ |B| \quad \text{Cardinality of set } B. \]

\[ (p, q) \quad \text{A graph with order } p \text{ and size } q \text{ i.e. } |V(G)| = p, |E(G)| = q. \]

\[ d(v) \quad \text{Degree of vertex } v. \]

\[ P_n \quad \text{Path graph on } n \text{ vertices.} \]

\[ C_n \quad \text{Cycle with } n \text{ vertices.} \]

\[ T \quad \text{Tree.} \]

\[ C(m, d) \quad \text{Caterpillar.} \]

\[ K_n \quad \text{Complete graph on } n \text{ vertices.} \]

\[ K_{m,n} \quad \text{Complete bipartite graph with vertex set partition of } m \text{ and } n. \]

\[ K_{1,n} \quad \text{Star graph.} \]

\[ G \times H \quad \text{Cartesian product of graphs } G \text{ and } H. \]

\[ P_n \times P_m \quad \text{Grid graph.} \]

\[ G + H \quad \text{Join of graphs } G \text{ and } H. \]

\[ B_{n,n} \quad \text{Bistar.} \]

\[ B_{n,n}^2 \quad \text{Square of } B_{n,n}. \]

\[ C(n \cdot G) \quad \text{Cycle of a graph } G. \]

\[ G^* \quad \text{Star of a graph } G. \]

\[ P(t \cdot G) \quad \text{Path union of } t \text{ copies of a graph } G. \]

\[ St_n \quad \text{Step grid graph.} \]

\[ P^t_n \quad \text{One point union of } t \text{ copies of path } P_n. \]

\[ S(n \cdot G) \quad \text{Open star of a graph } G. \]

\[ S'(G) \quad \text{Splitting graph of } G. \]
⌈n⌉ Least integer not less than real number $n$ (Ceiling of $n$).
⌊n⌋ Greatest integer not greater than real number $n$ (Floor of $n$).
$e_f(n)$ Number of edges with edge label $n$.
$v_f(n)$ Number of vertices with vertex label $n$.
$G \cup H$ Union of graphs $G$ and $H$.
$G \cap H$ Intersection of graphs $G$ and $H$. 