

Reminder I

- Graph $G = (V, E, i)$, $i: E \rightarrow V \times V$,
oriented = directed / unoriented = undirected, loop,
multiple-edges, simple graph, finite graph.
- degree of a vertex: $\deg(x)$, $\delta(G)$, $\Delta(G)$, k -regular.
- Subgraph, induced subgraph, bipartite graph.
- Walk, trail, path, and their length.
- distance $d(x, y) \neq d(y, x)$ in general for digraphs
- eccentricity $\text{ecc}(x) := \max_{y \in V} d(x, y)$,
 $\text{diam}(G)$, $\text{rad}(G)$, central vertex.
- connected, strongly connected graph.