Reminder VII

- Vertex connectivity $\kappa_V(G)$, edge connectivity $\kappa_E(G)$: minimum # vertices/edges to be removed to disconnect G.
- Graph k-connected if $k \leq \kappa_V(G)$.
- Internally disjoint paths from x to y.
- Various characterizations of 2 connected unoriented graphs
- A-B path, internally disjoint A-B paths.
- A-B separator ⚠ ; $\kappa(A,B)$ = min. # vertices in separator, $\ell(A,B)$ = max. # internally disjoint A-B paths.
- Menger thm: If A-B not adjacent, then $\kappa(A,B) = \ell(A,B)$.

$\Rightarrow$ G k-connected $\Leftrightarrow$ at least k-internally disjoint paths between any pair of vertices.

- Block-cutpoint graph $\rightsquigarrow$ skeleton of G as a bipartite tree.