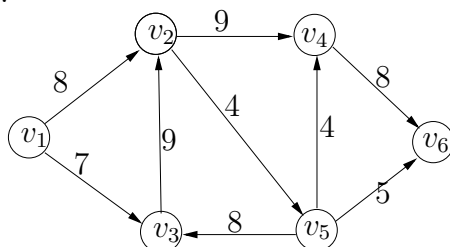


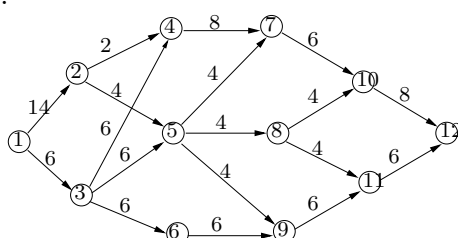
Problem Set 6: Flows in a Digraph

- (1) Apply the flow augmenting path algorithm to solve the max-flow problems given by the capacitated digraphs below. In each graph the source node is the node number 1 and the sink node is the highest numbered node. The arc capacities are the numbers associated with each arc. Initialize the flow at the zero flow. Report both the optimal flow and the associated optimal min cut.

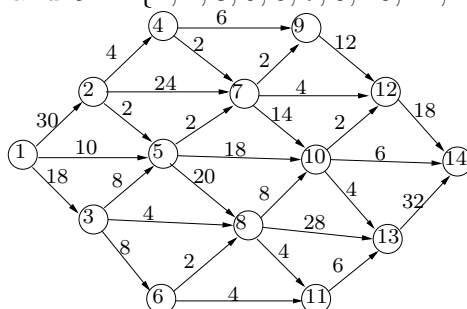
(a) Max-Flow = 12.



(b) Max-Flow = 12.



(c) Max-Flow = 50 and $U = \{1, 2, 3, 5, 6, 7, 8, 10, 11, 13\}$.



(d) Max-Flow = 19

