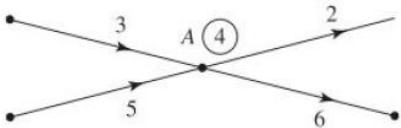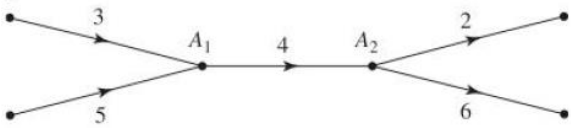# DC - Network flows

What are saturated arcs?	Arcs that are at full capacity.
What should you do when there are multiple sinks and sources?	Create super sinks and super sources with sensible capacities.
What does the maximum-flow minimum-cut theorem state?	That the flow through any network cannot exceed the value of any cut and so the maximum flow is equal to the minimum cut.
What should you do if you come across a node with a restricted capacity?	Add in an extra capacitated arc and two nodes to replace the node. For example, if this node has a capacity of 4 you redraw it as Notice that all inflows to A go to the first node A_1 and all outflows emerge from the second node A_2
What is the value of the cut for a network with minimum flows?	The sum of the upper capacities from S to T minus the sum of the lower capacities from T to S.
How can you make an initial flow for a network with minimum flows?	- Set the flow through each arc to the minimum. - Adjust accordly so it works (in's = out's).