# DC - Network flows

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| **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. |
| **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). |