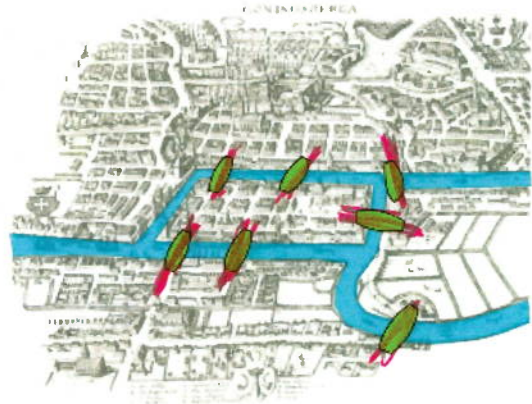
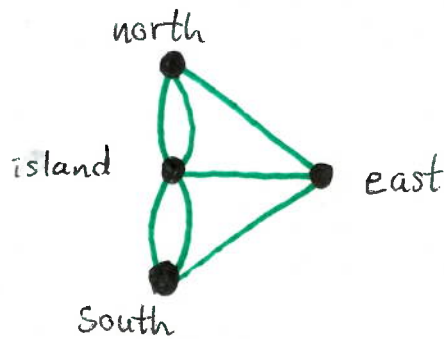


In a multigraph (or simple graph) G , define the following:

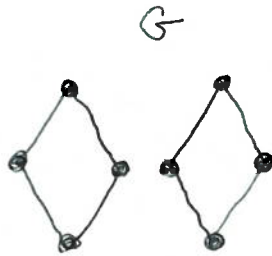
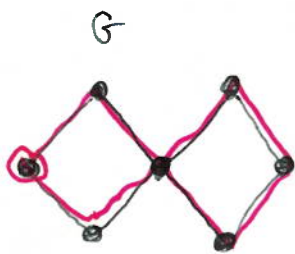
- **Eulerian trail:** a trail that includes every edge of G
- **Eulerian tour:** a tour that includes every edge of G

The bridges of Königsberg problem asks whether there is an Eulerian trail through this multigraph:



Question: What conditions must a multigraph G satisfy to have an Eulerian trail? How about an Eulerian tour?

Some examples to help you think:



- Necessary:
- must be connected
 - must have 2 ~~odd~~ degree vtxs (for trail)
 - or 0 odd degree vtxs (for tour)