

**NPTEL**

**NPTEL ONLINE CERTIFICATION COURSE**

**Discrete Mathematics  
Graph Theory - 2**

**Why even degree**

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Before getting into the details, let us see why this even thing tells us about whether a graph is Eulerian or not, what do you mean by Eulerian? You can go through all the edges and come back to the starting point, right, if the nodes degree is odd you see you enter the node, you leave the node using edges, every time you leave the node you would have exhausted even number of edges think about it, and if the degree of a node is odd you obviously are ending up in that node when you have exhausted all the edges emanating from that node, isn't it?

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