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NPTEL ONLINE CERTIFICATION COURSE

Discrete Mathematics
Graph Theory - 1

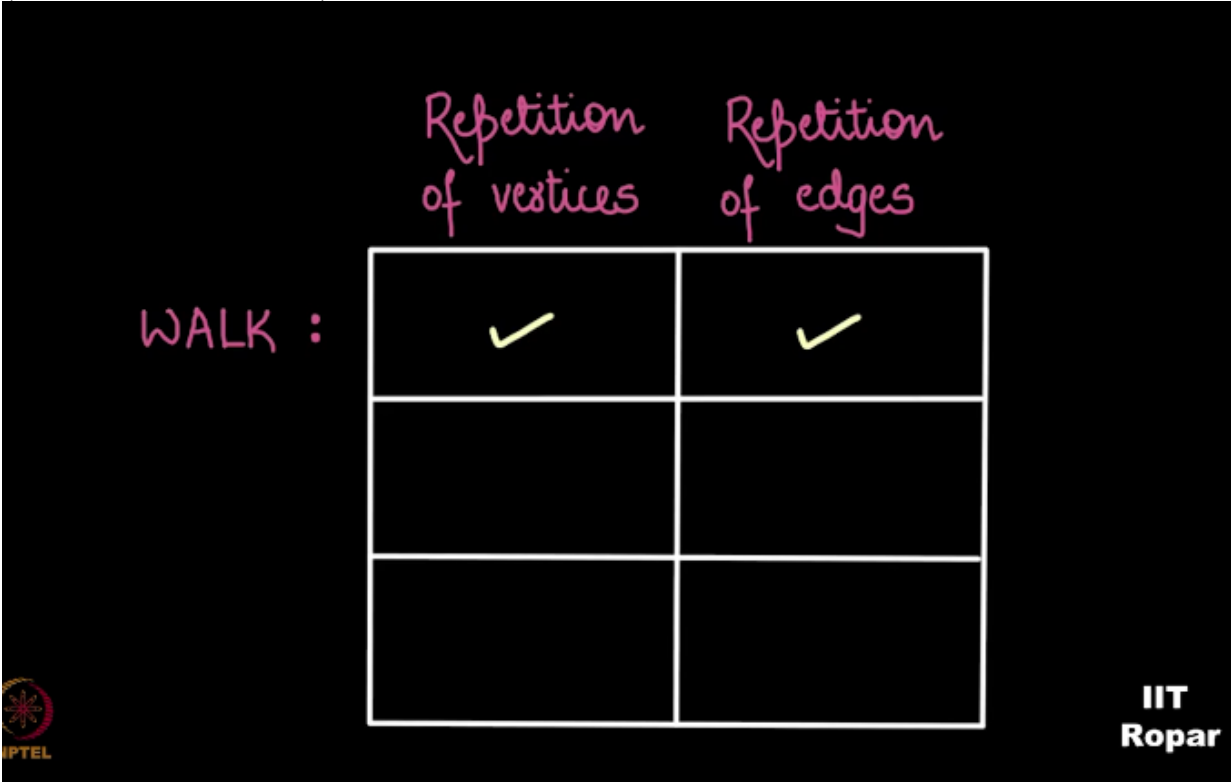
Definitions revisited

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Since it was a lot of definitions I would like to summarize what we are seeing in the last 3 videos, walk is the sequence of vertices and edges, when it does not matter if you repeat the edges and the vertices, it really does not matter and hence a walk is just a sequence of vertices and edges.

(Refer Slide Time: 00:27)

	Repetition of vertices	Repetition of edges
WALK :	✓	✓



A trail is the walk where you can repeat vertices, but repetition of edges is not allowed,
(Refer Slide Time: 00:39)

	Repetition of vertices	Repetition of edges
WALK :	✓	✓
TRAIL :	✓	✗

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and the path is a walk where you cannot repeat the vertices which indeed implies, you are not repeating the edges.

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	Repetition of vertices	Repetition of edges
WALK :	✓	✓
TRAIL :	✓	✗
PATH :	✗	✗

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