(十) 图论: 树 (Trees)

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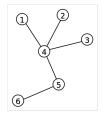
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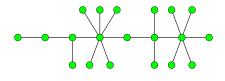


你, 真得, 看懂了吗?

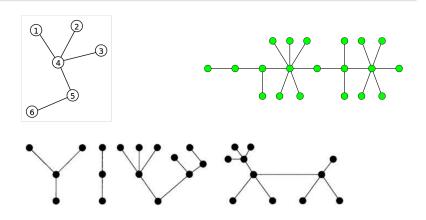
A tree is a connected acyclic undirected graph.

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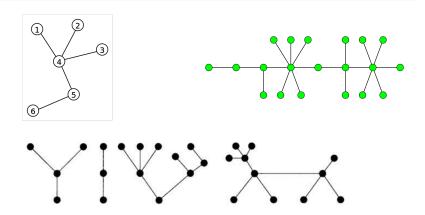




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Definition (Forest (森林))

A forest is a acyclic undirected graph.



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Theorem

Let T be an undirected graph with n vertices.

Then the following statements are equivalent:

- (1) T is a tree;
- (2) T is acyclic, and has n-1 edges;
- (3) T is connected, and has n-1 edges;
- (4) T is connected, and each edge is a bridge;
- (5) Any two vertices of T are connected by exactly one path;
- $(6)\ T$ is acyclic, but the addition of any edge creates exactly one cycle.

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Thank You!



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