ePAL - Graph Isomorphism

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Outline

1. Graph Isomorphism
2. Tree Certificates

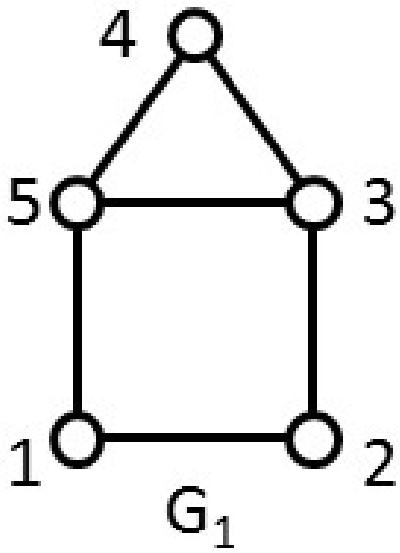
Outline

1 Graph Isomorphism

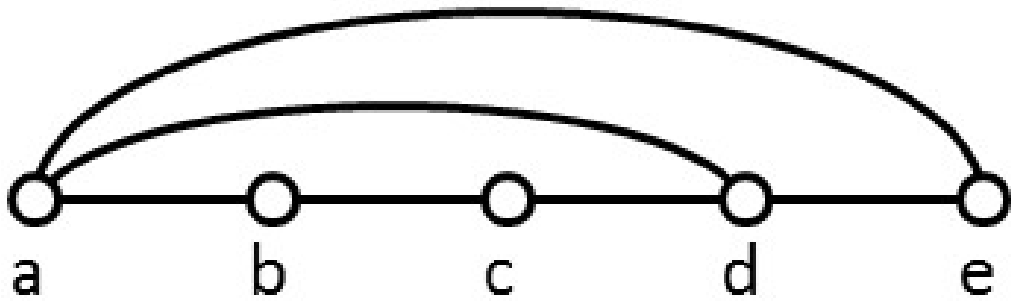
2 Tree Certificates

Example 1

Find the function of the two following graphs isomorphism.



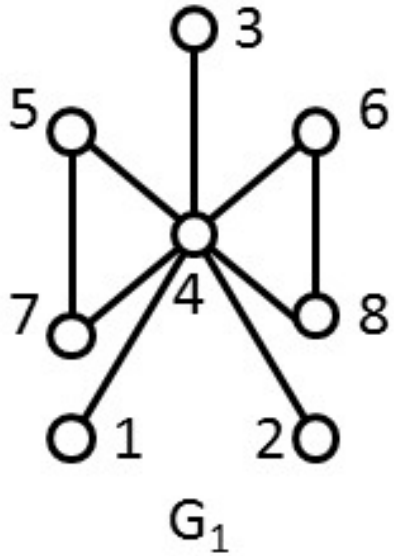
G_1



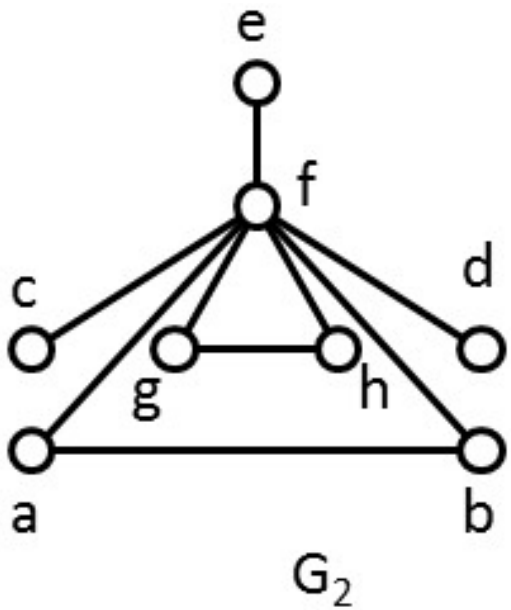
G_2

Example 2

Find the function of the two following graphs isomorphism.



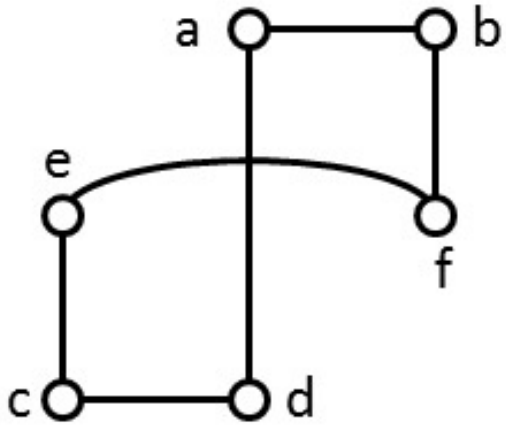
G_1



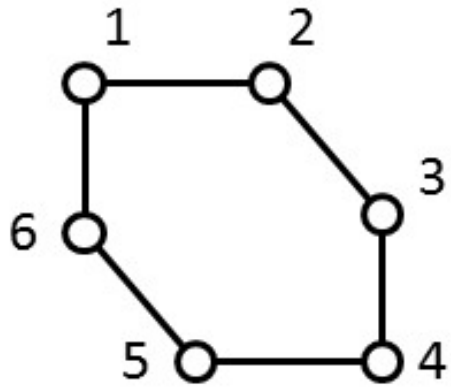
G_2

Example 3

Find the function of the two following graphs isomorphism.



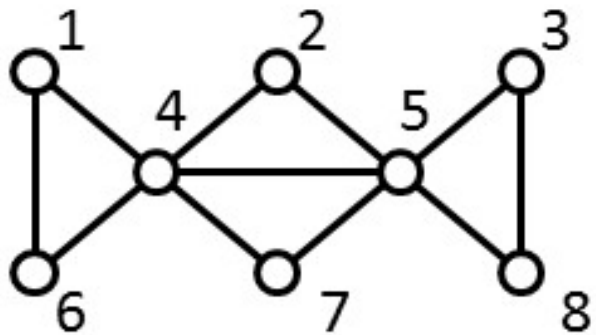
G_1



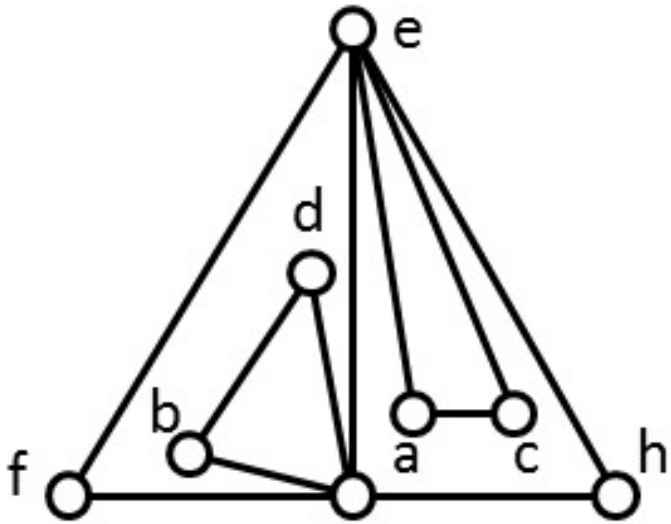
G_2

Example 4

Find the function of the two following graphs isomorphism.



G_1



G_2

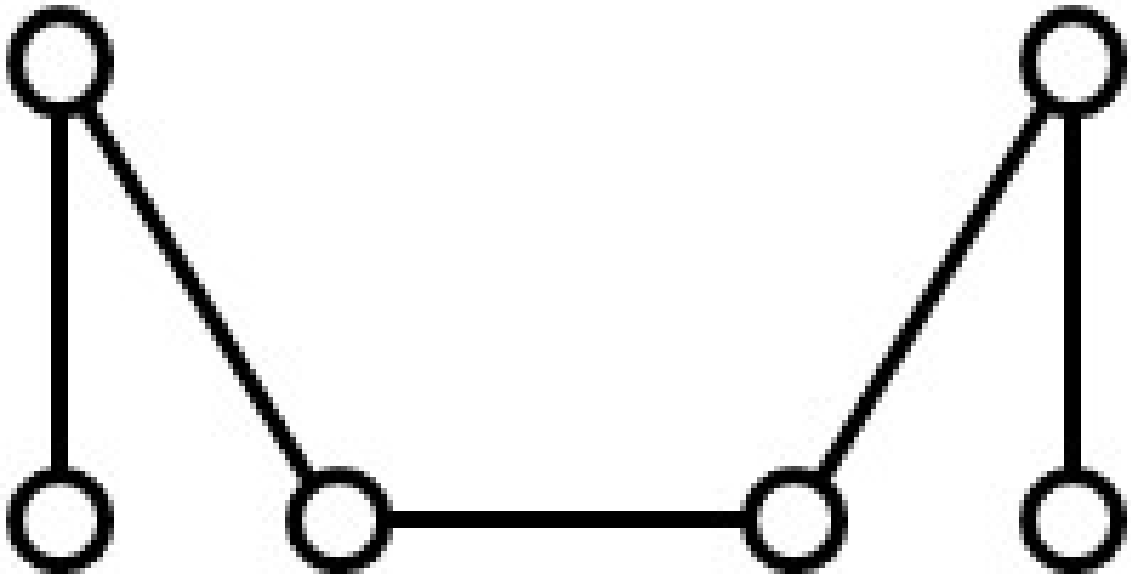
Outline

1 Graph Isomorphism

2 Tree Certificates

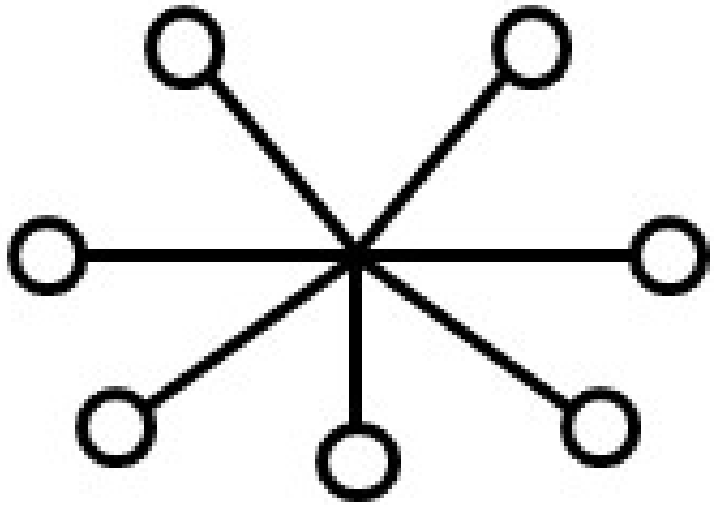
Example 5

Create the certification for the following tree



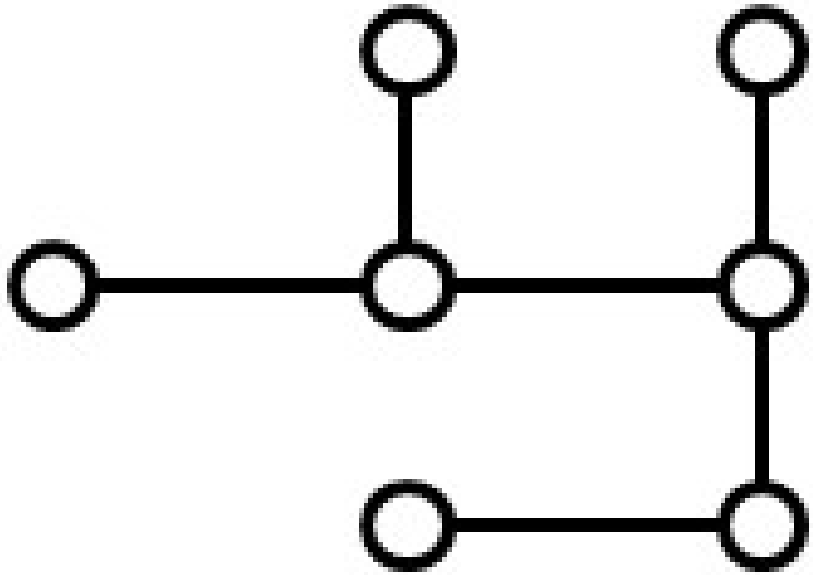
Example 6

Create the certification for the following tree



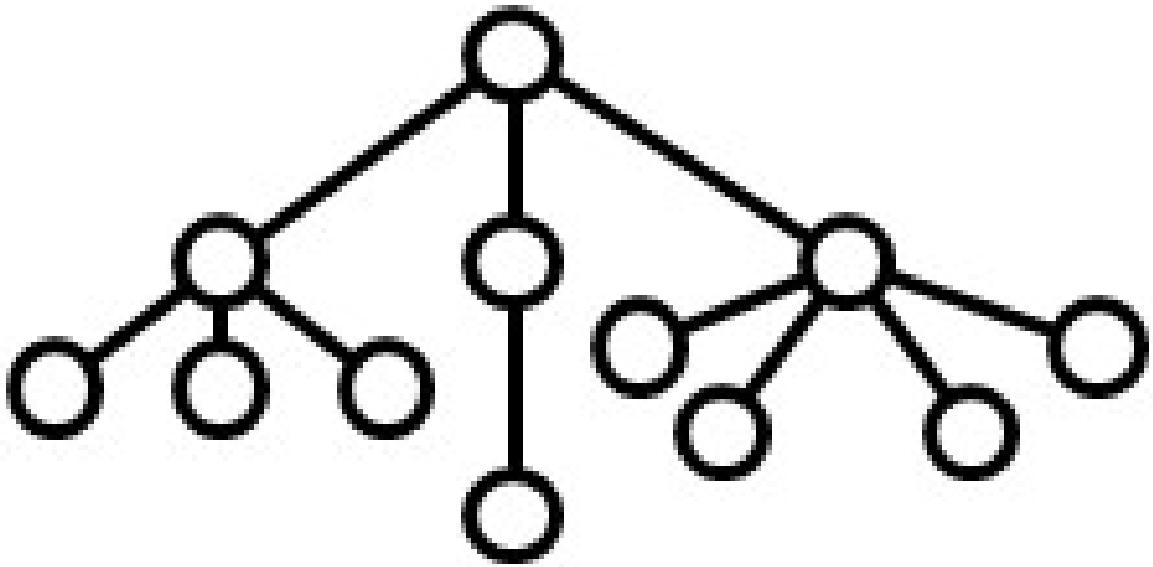
Example 7

Create the certification for the following tree



Example 8

Create the certification for the following tree



Example 9

A tree certificate is given. Explain how we determine the number of the tree leaves although we do not reconstruct the tree.

Example 10

A tree certificate is given. Explain how we determine the maximum node degree of the tree although we do not reconstruct the tree.

Example 11

Reconstruct a tree from its certificate

1. 0011
2. 000101100101011
3. 00010110010110010111
4. 0000110001011110010001011111

References I