

GRAPH THEORY

PEMBENTUKAN SUATU GRAPH 4 - TERHUBUNG

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MPM 33/02
Set
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SKRIPSI



MILIK
PERPUSTAKAAN
UNIVERSITAS AIRLANGGA
SURABAYA

WAHYU ARNI SETIAWATI

NIM : 089611454

**JURUSAN MATEMATIKA
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
UNIVERSITAS AIRLANGGA
SURABAYA
2002**

PEMBENTUKAN SUATU GRAPH 4 - TERHUBUNG

SKRIPSI

**Sebagai Salah Satu Syarat Untuk Memperoleh
Gelar Sarjana Sains Bidang Matematika pada Fakultas Matematika
Ilmu Pengetahuan Alam Universitas Airlangga**

Oleh :

WAHYU ARNI SETIAWATI
NIM. 089611454



Tanggal Lulus : 29 Juli 2002

Disetujui Oleh :

Pembimbing I,

A handwritten signature in black ink, consisting of several loops and a long horizontal stroke at the end.

LILIEK SUSILOWATI, S. SI, M. SI
NIP. 132105900

Pembimbing II,

A handwritten signature in black ink, featuring a large, stylized 'M' shape followed by a long horizontal stroke.

Drs. MOH. IMAM UTOYO, M. SI
NIP. 131801397

LEMBAR PENGESAHAN SKRIPSI

Judul : PEMBENTUKAN SUATU GRAPH 4 - TERHUBUNG
Penyusun : WAHYU ARNI SETIAWATI
NIM : 089611454
Tanggal Ujian : 29 Juli 2002

Dsetujui Oleh :

Pembimbing I,



LILIEK SUSILOWATI, S. Si, M. Si
NIP. 132105900

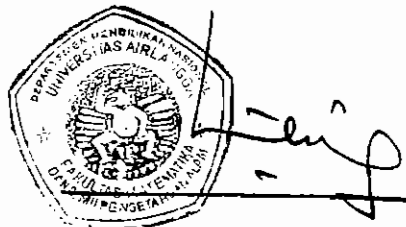
Pembimbing II,



Drs. MOH. IMAM UTOYO, M. Si
NIP. 131801397

Mengetahui :

Dekan Fakultas MIPA
Universitas Airlangga,



Drs. H. A. LATIEF BURHAN, M.S.
NIP. 131286709

Ketua Jurusan Matematika
FMIPA Unair,



Drs. MOH. IMAM UTOYO, M.Si
NIP. 131801397

Wahyu Arni Setiawati, 2002. To make a graph four-connected . This script is under supervise of Liliek Susilowati, S.Si, M. Si and Drs. Moh. Imam Utoyo, M.Si. Departement of Mathematic, Faculty of Mathematic and Natural Science, Airlangga University.

ABSTRACT

A graph G is 2-connected if $|V| \geq 3$ and deleting any set of less than 2 vertices in a connected graph. A graph G is 4-connected if $|V| \geq 5$ and deleting any set of less than 4 vertices in a connected graph. The porpuse of this script is to make a 4-connected graph from a 2-connected graph. By looking the longest cycle a 2-connected graph ie the length of the longest cycle = 4 and the length of the longest cycle at least 5.

The Result of this script is

Let G_1 is the longest cycle at 2-connected graph. If G_1 has length 4, than 4-connected graph can made from 2-connected graph with increase $n-1$ edges. If G_1 has length at least 5, than 4-connected graph can made from 2-connected graph with increase n edges.