6-1. Answers to some imbedding questions

In what spaces might we imbed graphs?
1)
2)
3)
4)
5)
6)
7)

a vertex is called a

a line is a

a triangle is a

a is composed of and

Thus a finite is a

A of dimension is composed of where

THEOREM A countable and locally finite simplicial complex of dimension imbeds in

COROLLARY A graph imbeds in (each

Proof
An \textit{of} an is

A graph is a graph if can be obtained from by a (finite) of

We say is a of

Also two graphs and are each other if they are both a common graph

\textbf{THEOREM} (Kuratowski) A graph is if and only if it has no subgraph

Example

\textbf{THEOREM}

\textbf{Proof}

\textbf{COROLLARY}
6-2. Definition of “imbedding”

Definition #1: (J. W. T. Youngs)

Let and

Let be a of in is a subspace of such that

(i)

(ii)

Note: An is a image of

An is

(iii)

(iv)

Definition #2:

A graph imbeds in if the of as a finite

in is with a subspace of (call it )