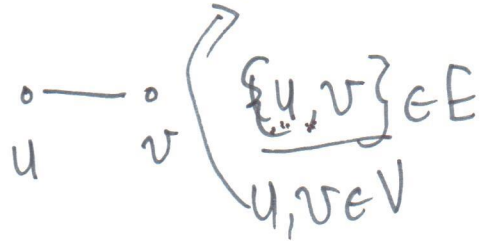
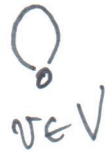


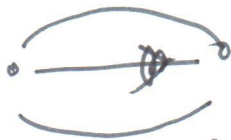
(undirected)
A graph

a set of vertices V

a set of edges E — one vertex, two vertices



* multi edged graph $\{u, v\}$



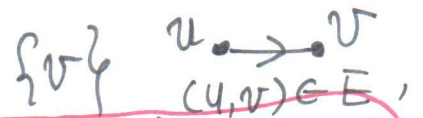
Graph $G = (V, E)$

1. V a set of vertices

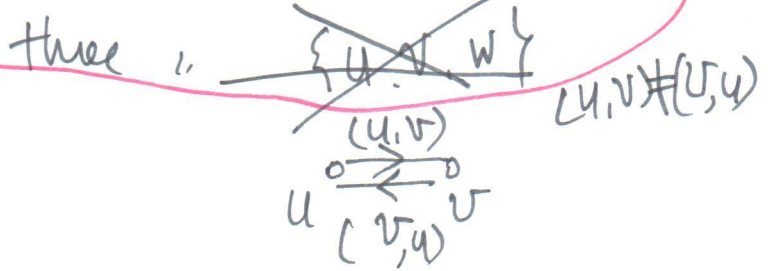
~~V : a set of vertices (nonempty)~~

2. $E \subseteq V \times V$ a set of (two) $u, v \in V, (u, v) \in E$ ^{ordered} pair of vertices

~~E ... a set of singleton sets~~



~~or a set of two elements $\{u, v\} = \{v, u\}$~~



• undirected graph
 $(u, v), (v, u) \in E$
symetic

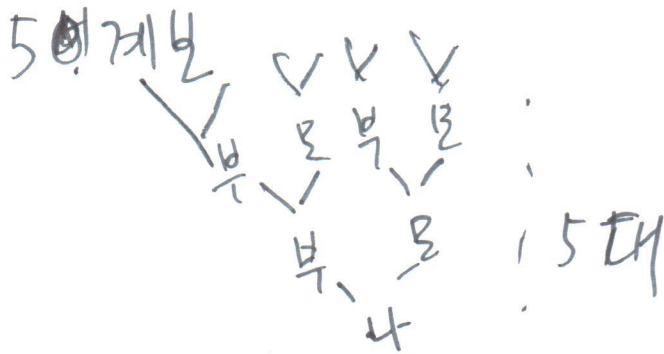
• multiple graph

Edge-weighted Graph $G_f = (V, E, f)$

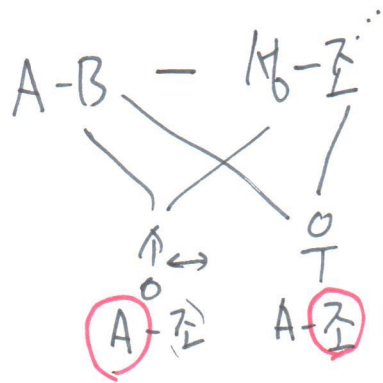
↓
어) 감기사

- ① V is a set.
- ② $E \subseteq V \times V$ set
- ③ $f: V \times V \rightarrow X$
 $E \rightarrow X$

Tree ... 가계도 (부계 중심)



남자의 성: 부계성, 여자의 성: 모계성



Assignment statement considered harmful - 최광성
 (Go to) - E. Dijkstra
 ↳ Structured programming
 begin..end, { }

functional P.L. - LISP, ~~aml~~, ...
 ↳ assignment in argument aliasing!

Logic P.L. ... Prolog

procedural P.L. ... C, Python, (ALgol60, Pascal), Scalar

Object oriented P.L. C++, Java

class, object
 같음. 다름.

Inheritance
 multiple inheritance
 single / — tree