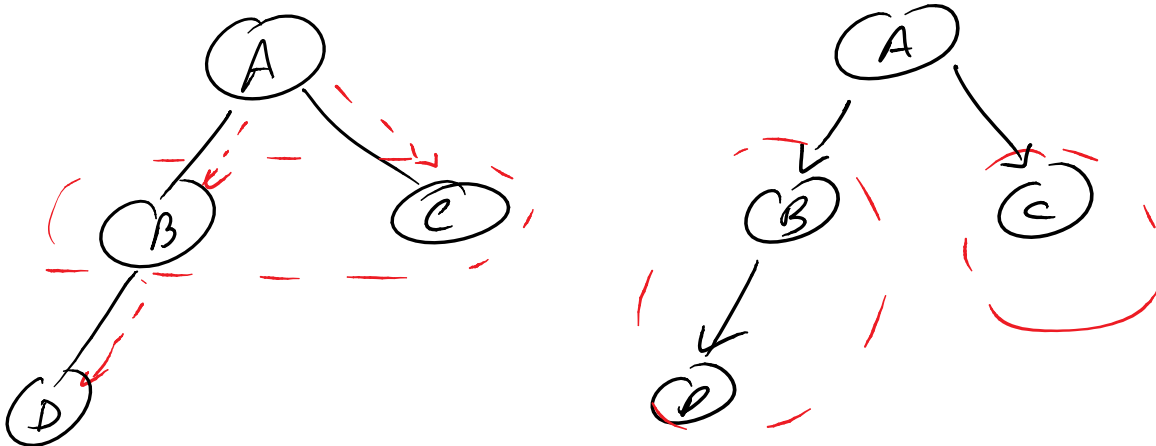c_{max}

$\log_2 n$

c

$c > 0$

16

20

30

Second Exam
Friday Nov 14, 2014

Graph Structure

Graph ::= (V, E)

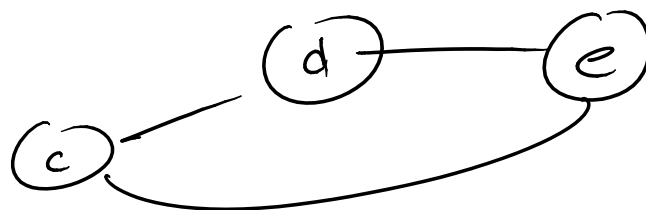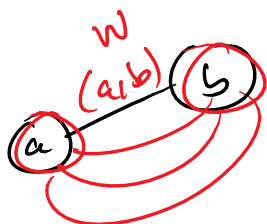V — Set of vertices or nodes

E — Set of edges or arcs or links

E — edges are a relation on the vertices

$E = \{ (x, y) \mid x \in V \text{ and } y \in V \}$

$V = \{ a, b, c, d, e \}$

$E = \{ (a, b), (c, d), (d, e), (c, e) \}$

Undivect Graph $\quad G = (V, E)$

Direct Graph $\quad DG = \langle V, E \rangle$

$V = \{ a, b, c \}$ $\qquad$ $V = \{ a, b, c \}$

$$V = \{a, b, c\}$$

$$E = \{(a,b), (b,c)\}$$

(b,a) (c,b)

(a) — (b) — (c)

$$V = \{a, b, c\}$$

$$E = \{\langle a,b \rangle, \langle b,c \rangle\}$$

$\langle b,a \rangle, \langle c,b \rangle$

(a) → (b) → (c)