

Aufgabe 1

Note Title

5/31/2016

a, Adjazenzmatrix

	a	b	c	d	e
a	0	1	0	1	0
b	1	0	1	0	1
c	0	1	0	0	1
d	1	0	0	0	1
e	0	1	1	1	0

Adjazenzliste

a → b → d

↓

b → a → c → e

↓

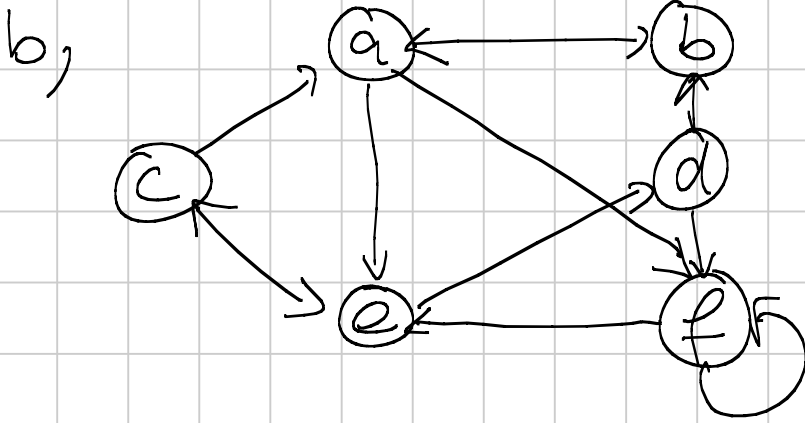
c → b → e

↓

d → a → e

↓

e → b → c → d



$a \rightarrow b \rightarrow e \rightarrow f$

↓

$b \rightarrow a$

↓

$c \rightarrow a \rightarrow e$

↓

$d \rightarrow b \rightarrow f$

↓

$e \rightarrow c \rightarrow d$

↓

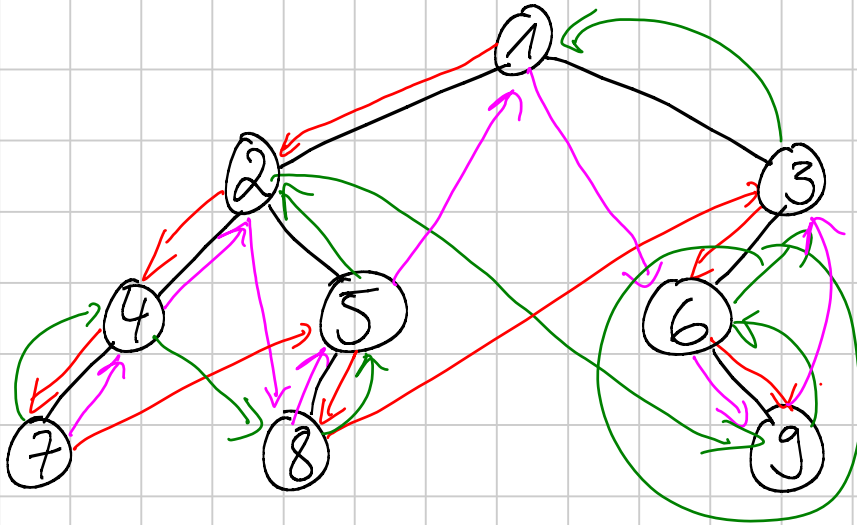
$f \rightarrow e \rightarrow f$

Aufgabe 2

Note Title

5/31/2016

a,

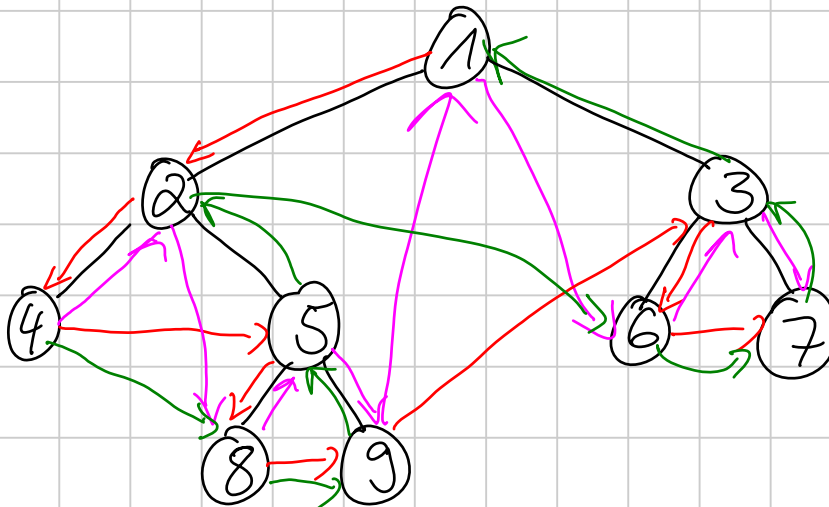


Pre-Order: 1, 2, 4, 7, 5, 8, 3, 6, 9

In-Order: 7, 4, 2, 8, 5, 1, 6, 9, 3

Post-Order: 7, 4, 8, 5, 2, 9, 6, 3, 1

b,



Pre-Order: 1, 2, 4, 5, 8, 9, 3, 6, 7

In-Order: 4, 2, 8, 5, 9, 1, 6, 3, 7

Post-Order: 4, 8, 9, 5, 2, 6, 7, 3, 1

Aufgabe 3

Note Title

6/1/2016

$$C_0 \cdot C_1 \Rightarrow P$$

$$C_1 = C_0 \wedge \text{maxval} = X[0] \wedge i=1$$

$$\text{maxval} \stackrel{P}{=} f(i) = f(1) = X[0] \checkmark$$

$$\cdot \underline{\{C_2 = P \wedge (i < n)\} \dots \{C_3 = P\}}$$

$$\text{Sei } \begin{array}{l} \text{maxval}' = \max(\text{maxval}, X[i]) \\ \rightarrow \\ i' = i + 1 \end{array}$$

$$\Rightarrow f(i') = f(i+1)$$

$$= \max(f(i), X[i])$$

$$\stackrel{P}{=} \max(\text{maxval}, X[i])$$

$$= \text{maxval}' \checkmark$$

$$\cdot \underline{(P \wedge \neg(i < n)) \Rightarrow C_4}$$

$$\text{Sei } i=n :$$

$$P \wedge (i=n) \Rightarrow f(i) \stackrel{P}{=} \text{maxval}$$

$f(n) = \maxval$ \checkmark entspricht G