

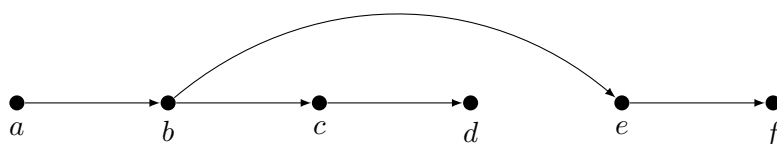
Hausaufgaben zum 23. 11. 2012

Arne Struck 6326505

20. Dezember 2012

1.

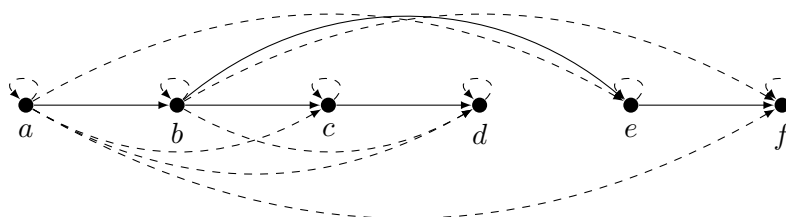
a)



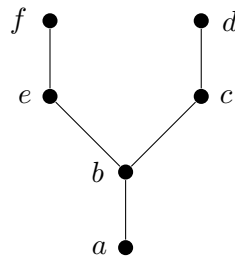
	a	b	c	d	e	f
a	0	1	0	0	0	0
b	0	0	1	0	1	0
c	0	0	0	1	0	0
d	0	0	0	0	0	0
e	0	0	0	0	0	1
f	0	0	0	0	0	0

b)

Hinzugefügte Kanten sind gestrichelt dargestellt.



c)



d)

$$S = \{R, (a, a), (b, b), (c, c), (d, d), (e, e), (f, f), (a, c), (b, d), (a, d), (b, f), (a, e), (a, f), (b, a), (c, b),$$

$$(e, b), (f, e), (c, a), (d, b), (d, a), (f, b), (e, a), (f, a)\}$$

S umfasst eine komplette Relation $A \rightarrow A$.

$$K_1 = (a, b, c, d, e, f)$$

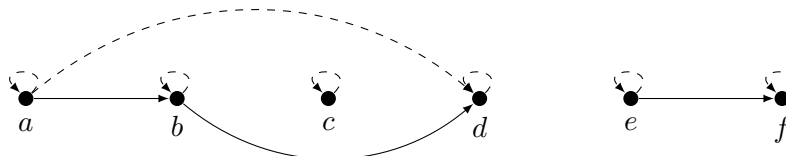
2.

a)

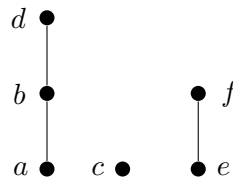


	a	b	c	d	e	f
a	0	1	0	0	0	0
b	0	0	0	1	0	0
c	0	0	0	0	0	0
d	0	0	0	0	0	0
e	0	0	0	0	0	1
f	0	0	0	0	0	0

b)



c)



d)

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

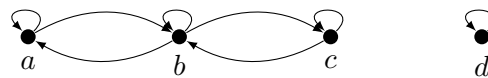
$$K_1 = (a, b, d)$$

$$K_2 = (c)$$

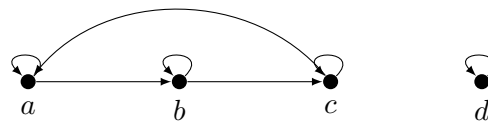
$$K_3 = (e, f)$$

3.

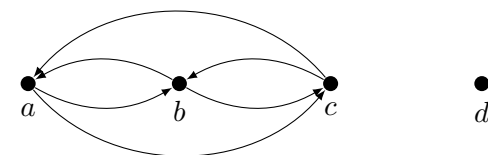
a)



b)



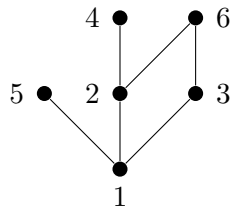
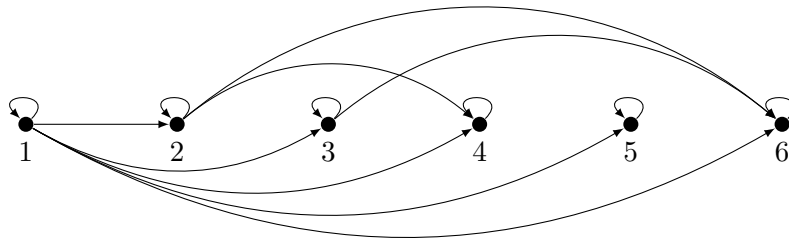
c)



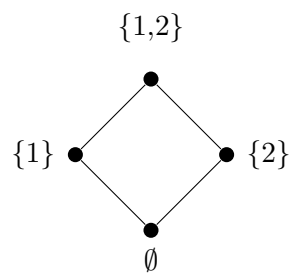
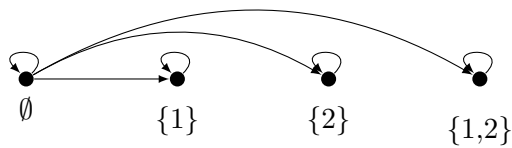
4.

a)

$$R = \{(1, 1), (1, 2), (1, 3), (1, 4), (1, 5), (1, 6), (2, 2), (2, 4), (2, 6), (3, 3), (3, 6), (4, 4), (5, 5), (6, 6)\}$$



b)



c)

$$A = \{\emptyset, \{1\}, \{2\}, \{3\}, \{1, 2\}, \{1, 3\}, \{2, 3\}, \{1, 2, 3\}\}$$

