Technische Universität Dresden

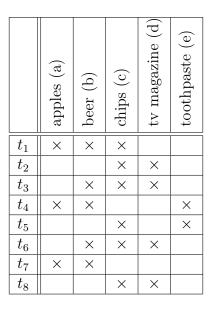
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## Formal Concept Analysis Exercise Sheet 10, Winter Semester 2016/17

Exercise 1 (association rules)

We regard the context of transactions of a supermarket. Determine

- (a) the *support* and the *confidence* for the association rules
  - {tv magazine}  $\rightarrow$  {beer},
  - $\{\text{chips}\} \rightarrow \{\text{tv magazine, beer}\}$  and
  - {tv magazine, beer}  $\rightarrow$  {chips}
- (b) as well as at least two further association rules with a minimal support of 25% and a minimal confidence of 66%.



Exercise 2 (computing the stem base with NEXT CLOSURE)

Determine the stem base for this context using the NEXT CLOSURE algorithm. Use the following table as help:

	Mobil (1)	Telefon (2)	Fax $(3)$	Fax m. NAdapter (4)
Sinus 44 (a)		×		
Nokia 6110 (b)	×	×		
T-Fax 301 (c)			×	×
T-Fax 360 PC (d)			×	

A	i	A+i	$\mathcal{L}^{\bullet}(A+i)$	$A <_i \mathcal{L}^{\bullet}(A+i)?$	$(\mathcal{L}^{\bullet}(A+i))''$	L	intents
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