Example 4.2.2.3

Example: X= { Beer, Milk, Diaper }; $\sigma(X)$= ?

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Consider the rule {Milk, Diaper} → {Beer}

Support({Milk, Diaper} → {Beer}) = 2/5 = 0.40

Confidence({Milk, Diaper} → {Beer}) = 2/3 = 0.67

TID	Items
1	Bread, Coke, Milk
2	Beer, Bread
3	Beer, Coke, Diaper, Milk
4	Beer, Bread, Diaper, Milk
5	Coke, Diaper, Milk

Solution

① $X = \{ Beer, Milk, Diaper \}$

$\sigma(X) = 2$ X contain Item twice. times

$X = \{ Milk \ \ Diaper \}$

$\sigma(X) = 3$

② the rule $\{M, D\} \rightarrow \{B\}$

$$Support(\{M\ D\} \rightarrow \{B\}) = \frac{\sigma(M\ D\ \cup\ B)}{|T|} = \frac{2}{5}$$

$$confidence(\{M\ D\} \rightarrow \{B\}) = \frac{\sigma(M D \cup B)}{\sigma(M D)} = \frac{2}{3}$$