

Quiz 7

Transaction ID	Product ID
11231	IA45Y
11231	DDD7M
11231	BDR5U0
11231	KLYT6
11232	TTR45H
11232	HJL9B
11232	DDD7M
11232	IA45Y
11232	BDR5U0
11232	KLYT6
11233	KLYT6
11233	IA45Y
11233	DDD7M
11234	KLYT6
11234	BDR5U0
11235	DDD7M
11235	KLYT6
11235	BDR5U0
11235	IA45Y

1. (2 pts.) What is the **support** and **confidence** for the rule **BDR5U0 ==> DDD7M** ?

Support: 3/5

Confidence: 3/4

2. (2 pts.) What is the **support** and **confidence** of the rule **KLYT6 ==> IA45Y** ?

Support: 4/5

Confidence: 4/5

3. (2 pts.) What is the **expected confidence** of the rules **BDR5U0 ==> DDD7M** and **KLYT6 ==> IA45Y** ?

BDR5U0 ==> DDD7M: 4/5

KLYT6 ==> IA45Y: 4/5

4. (2 pts.) What is the **lift** of the rules **BDR5U0 ==> DDD7M** and **KLYT6 ==> IA45Y** ?

BDR5U0 ==> DDD7M: $(3/4)/(4/5) = 0.9375$

KLYT6 ==> IA45Y: $(4/5)/(4/5) = 1$

5. (2 pts.) Given the **lift** of the rules, what can we say about the **correlation** between the products they involve?

There is a negative correlation in the occurrences of items BDR5U0 and DDD7M.

There is no correlation in the occurrences of items KLYT6 and IA45Y.