

**Exercise 37: (Laws of Logic)**

- 1.
- 2.
- 3.

**Exercise 38: (Two proofs)****Exercise 39: (Football experts)**

Is it sufficient if we construct formulas or do we also need to give a structure to "prove" our formulas?

At least the last statement is wrong. On July 22nd 2017, Bayern lost against Mailand, Dortmund against Bochum and Bremen against St. Pauli. This violates statement e.

wtf ich wette sogar das Dirk darauf hinaus wollte. Ich finde die Fussball echt langweilig.

**Exercise 40: (Switch and and or)**

I cannot find any rule to reduce  $\diamond \diamond \diamond B$