

# Artificial Intelligence

## Quiz 3

20 minutes - 15 points

( - up to 3 points off for bad presentation :) )

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**Exercise 1 (2 points)** *Give an example of an application that uses traditional logic. Justify your choice.*

**Exercise 2 (2 points)** *Give an example of an application that uses fuzzy logic. Justify your choice.*

**Exercise 3 (2 points)** *Give an example of an application that uses belief as part as knowledge representation. Justify your choice.*

**Exercise 4 (2 points)** *Prove, using two different methods that you name, whether the following formula is a tautology or not.*

$$(((a \vee b) \wedge (c \vee d)) \vee ((b \vee d) \wedge (c \vee a))) \rightarrow ((b \wedge c) \vee (a \wedge d))$$