

Handout 36. Logical expressions

Instruction: For each of the following expressions, say whether it is TRUE, FALSE or if it is impossible to know.

Expression 1: All cats are animals

Expression 2: All animals are cats

Expression 3: Right now, the door to the gymnasium is open or closed

Expression 4: Right now, the door to the gymnasium is open and closed

Expression 5: Right now, the door to the gymnasium is open

Expression 6:



Expression 6a: The dog is on the grass and the cat is in the tree

Expression 6b: The dog is on the grass or the cat is in the tree

Expression 7:



Expression 7a: The dog is on the grass and the cat is in the tree

Expression 7b: The dog is on the grass or the cat is in the tree