

NAME:**MATRIKELNUMMER:**

1) Given an ontology O which consists of the following two axioms

ClassAssertion(ex:Resident ex:Elise)

ClassAssertion(ex:Suite ex:Suite-No-5)

SubClassOf(ex:Resident ex:Person)

ObjectPropertyAssertion(ex:inhabits ex:Elise ex:Suite-No-5)

Write down an interpretation that satisfies O (is a model of O)

Vocabulary V (3pts)

$V = \{\text{Elise, Suite-No-5, Resident, Person, Suite, inhabits}\}$

Comment: Elise and Suite-No-5 are Individual Names; Resident, Person, Suite are Class Names; inhabits is a Property Name.

Domain D (1pt)

$D = \{a, b\}$

Interpretation function \cdot^I (6pts)

$\text{Elise}^I = a$

$\text{Suite-No-5}^I = b$

$\text{Resident}^I = \{a\}$

$\text{Person}^I = \{a\}$

$\text{Suite}^I = \{b\}$

$\text{inhabits}^I = \{(a, b)\}$