

## Assignment I

1. Problem 1 on page 28 in Brachman and Levesque
2. Problem 3 (a). For extra credit, you may do (b) as well.
3. Consider the interpretation from the class lecture in which the domain contained various famous people. Evaluate the following formulas in the interpretation and justify your answer. You only need a few lines argument for each; informally using the rules for truth in an interpretation.

(a)

$$\forall x L(\text{ARNIE}, x) \rightarrow H(x)$$

(b)

$$\forall x L(\text{WOLFGANG}, x) \rightarrow M(x)$$

(c)

$$\forall x \exists y L(x, y)$$

(d)

$$\exists y \forall x L(x, y)$$