

## Intelligent Retrieval from a Database, Part 2

By  $KB_1$  we denote the set consisting of the following sentences:

1.  $Male(A), Male(M), \neg Male(S), \neg Male(W)$ .
2.  $Parent(S, W), Parent(S, A), Parent(W, M)$ , and the negations of all other ground atoms beginning with  $Parent$ .
3.  $\forall x(Female(x) \leftrightarrow \neg Male(x))$ .
4.  $\forall xy(Brother(x, y) \leftrightarrow \exists z(Parent(z, x) \wedge Parent(z, y)) \wedge Male(x) \wedge x \neq y)$ .

**Problem 11.** Determine whether  $KB_1$  is (a) correct and (b) complete on the level of ground atoms.