$r_7: \ size(X,Y), Y \geq 45, garden(X,Z), central(X) \Rightarrow$

$\quad offer(X, 300 \ + \ 2Z + 5(Y - 45))$

$r_8: \ size(X,Y), Y \geq 45, garden(X,Z), \neg central(X) \Rightarrow$

$\quad offer(X, 250 \ + \ 2Z + 5(Y - 45))$

An apartment is only acceptable if the amount Carlos is willing to pay is not less than the price specified by the landlord (we assume no bargaining can take place).

$r_9: \ offer(X,Y), price(X,Z), Y < Z \Rightarrow \neg acceptable(X)$

$r_9 > r_1$

5.10.2   Representation of Available Apartments

Each available apartment is given a unique name, and its properties are represented as facts. For example, apartment a_1 might be described as follows:

$bedrooms(a_1, 1)$

$size(a_1, 50)$

$central(a_1)$

$floor(a_1, 1)$

$\neg elevator(a_1)$

$pets(a_1)$

$garden(a_1, 0)$

$price(a_1, 300)$

The descriptions of the available apartments are summarized in table 5.1. In practice, the apartments on offer could be stored in a relational database or, in a Semantic Web setting, in an RDF storage system.