Übungsaufgaben

Logik in der Praxis - Logikprogrammierung (Prolog)

Abgabe bis 09.12.08

Exercise 10.1 (1 Punkt)
Suppose we have the following database:
```
p(1).
p(2) :- !.
p(3).
```
Write all of Prolog's answers to the following queries:
```
?- p(X).
```

```
?- p(X),p(Y).
```

```
?- p(X),!,p(Y).
```

Exercise 10.2 (4 Punkte)
First, explain what the following program does:
```
class(Number, positive) :- Number > 0.
class(0, zero).
class(Number, negative) :- Number < 0.
```
Second, improve it by adding green cuts.

Exercise 10.3 (5 Punkte)
Without using cut, write a predicate split/3 that splits a list of integers into two lists: one containing the positive ones (and zero), the other containing the negative ones. For example:
```
   split([3,4,-5,-1,0,4,-9],P,N)
```
should return:
```
  P = [3,4,0,4]
```

```
  N = [-5,-1,-9].
```
Then improve this program, without changing its meaning, with the help of cut.