Prolog Hertentamen: augustus 2004

```
instance(fred,human).
instance(lisa,human).
instance(ralph,robot).
construction(human,biological).
construction(robot,mechanical).
instance(human,autonomous_system).
instance(robot,autonomous_system).
behaviour(autonomous_system,adaptive).
```

vraag 1a: fact(behaviour(ralph,X))

vraag 1b:

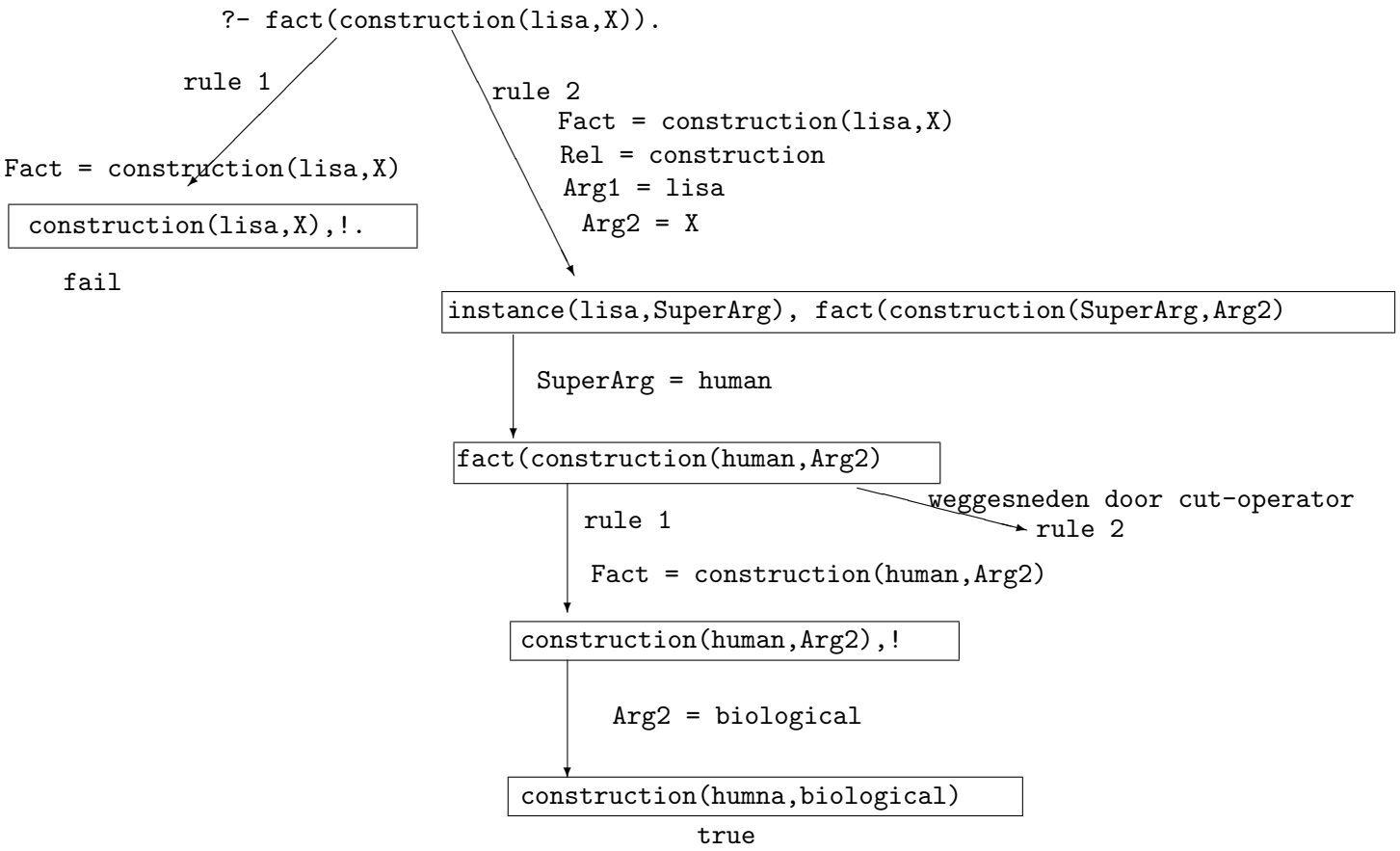
fact(instance(fred,human)).

Een direct feit in de DB, dus slaagt met eerste clause.

vraag 1c:

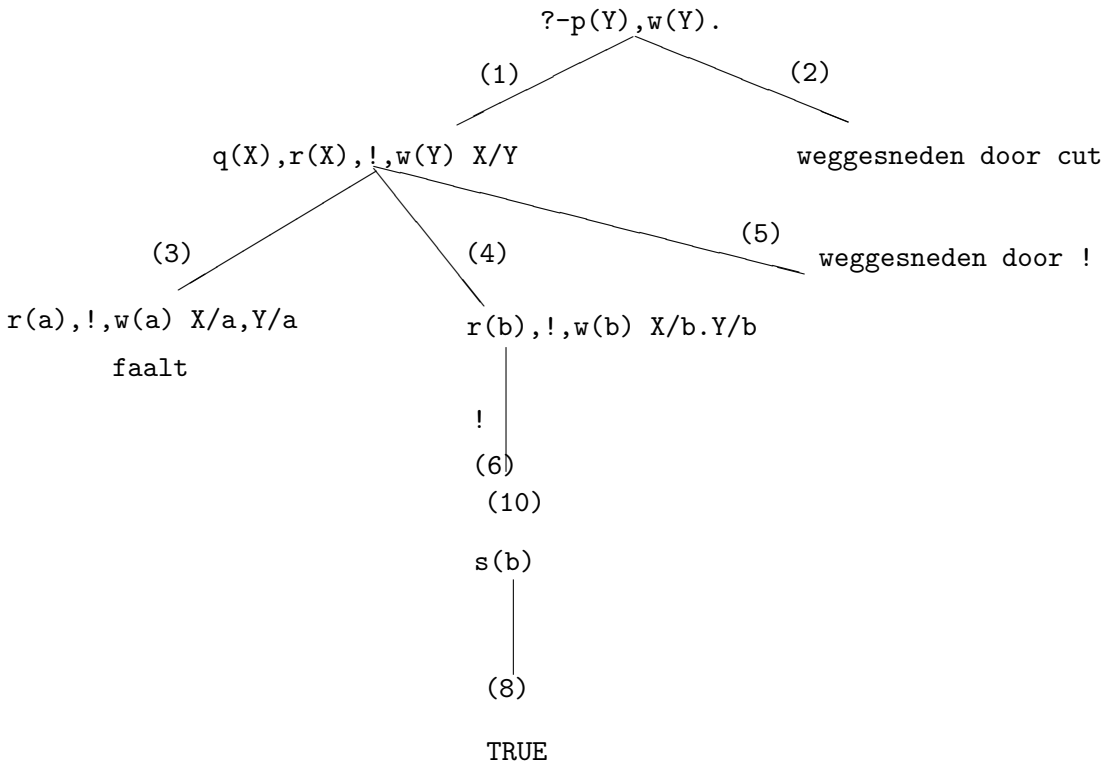
fact(construction(lisa,X)).

Deductie nodig.



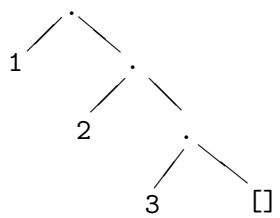
X = Arg2 = biological

Vraag 2:



Vraag 3a (5)

1. `[1,2,3] = .(1,.(2,.(3,[])))`



Vraag 3b (5) :

```
?- [1,[b,c],d]=[X|Y].

X = 1
```

```
Y = [[b, c], d] ;

No


?- [a,b|[]] = [a,b].

Yes

?- [a,b|[c,d]]=[X|Y].

X = a
Y = [b, c, d] ;

No
?- [f(X),X,f(Y)]=[f(1)|Z].

X = 1
Y = _G209
Z = [1, f(_G209)] ;

No
?- [1,3,5]=[X,Y].

No
```

Vraag 4:

```
mymaplist(_,[],[]).
mymaplist(P,[X|L],[Y|M]):-
   Q =.. [P,X,Y],
   call(Q),
   mymaplist(P,L,M).
```

vraag 5:

```
5a:
doolhofpad --> stap.
doolhofpad --> stap,doolhofpad.
stap --> [v].
```

```
stap --> [l].
stap --> [a].
stap --> [v], staprechts.
staprechts --> [r],[r].
staprechts --> [r],[r], staprechts.
```

5b:

```
l a v r r a
" l a v r r a"
```