TP8 - Histoire de menteurs

Paul Chaignon - Ulysse Goarant

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Listing 1 – menteurs.ecl

```
:- lib(ic).
:- lib(ic_symbolic).

:- local domain(humain(homme, femme)).

/**
 * Question 8.1
 * affirme(?S, ?A)
 */
affirme(S, A):-
  S &= femme => A #= 1.

/**
 * Question 8.2
 * affirme(?S, ?A1, ?A2)
 */
affirme(S, A1, A2):-
  S &= homme => ((A1#=1 and A2#=0) or (A1#=0 and A2#=1)).

/**
 * Question 8.3
 */
domain(Parent1, Parent2, Enfant, AffE, AffEselonP1, AffP1, Aff1P2,
    Aff2P2):-
  Parent1 &:: humain,
  Parent2 &:: humain,
  Enfant &:: humain,
  AffE #:: 0..1,
  AffEselonP1 #:: 0..1,
  AffP1 #:: 0..1,
  Aff1P2 #:: 0..1,
  Aff2P2 #:: 0..1.

/**
 * Question 8.4
 */
/**
 * labeling_symbolic(+Liste)
 */
labeling_symbolic([]).
labeling_symbolic([Var|Liste]):-
  ic_symbolic:indomain(Var),
  labeling_symbolic(Liste).

```

```
44 resoudre(Parent1, Parent2, Enfant, AffE, AffEselonP1, AffP1, Aff1P2,
       Aff2P2):-
45   domain(Parent1, Parent2, Enfant, AffE, AffEselonP1, AffP1, Aff1P2,
         Aff2P2),
46
47   AffEselonP1 #= (Enfant &= femme),
48   AffP1 #= (AffEselonP1 #= AffE),
49   Aff1P2 #= (Enfant &= homme),
50   Aff2P2 #= (AffE #= 0),
51
52   affirme(Parent1, AffP1),
53   affirme(Parent2, Aff1P2, Aff2P2),
54   affirme(Parent2, Aff1P2),
55   affirme(Parent2, Aff2P2),
56
57   Parent1 &\= Parent2,
58
59   labeling_symbolic([Parent1, Parent2, Enfant, AffE, AffEselonP1, AffP1,
         Aff1P2, Aff2P2]).
```