

HW3 – DUE 10 AM 30.JAN.2013

Instructions:

Submit **HW3_[lastname].pl** by dropping it into your Assignments folder on Google Drive. Please document your code.

First create a file **HW3_[lastname].pl**. The primitive family relationships in this file are to be parent/2, male/1, female/1, and marriedTo/2. Warning: Prolog doesn't know that if X is married to Y, Y is also married to X. You may use your own family, a famous family or even an imaginary family. Be sure to include enough relations that all of the following are possible.

Define the following Prolog predicates and add them to the file to test them. When I test your program I reserve the right to delete your family and insert one of my own choosing.

- | | |
|-------------------------|---------------------------------------|
| (1) mother(X, Y) | % X is mother/2 of Y |
| (2) is_mother(X) | % X is a mother/1 |
| (3) daughter(X, Y) | % X is daughter of Y |
| (4) child(X, Y) | % X is a child of Y |
| (5) sister(X, Y) | % X is sister of Y |
| (6) aunt(X, Y) | % X is aunt of Y |
| (7) grandmother(X, Y) | % X is grandmother of Y |
| (8) great_aunt(X, Y) | % X is great aunt of Y |
| | % great aunt = sister of grandparent |
| (9) sister_in_law(X, Y) | % X is sister-in-law of Y |
| | % sister-in-law = sister of spouse |
| | % AND sister-in-law = wife of brother |
| (10) descendant(X, Y) | % X is descendant of Y |