Logic Programming

Exercise 1

We will build a genealogy that covers relations in a family. Consider a genealogy database consisting of the following predicates (**as defined during lecture hours**):

```
female(X), male(X), parent(X,Y),
mother(X,Y), father(X,Y),
sister(X,Y), brother(X,Y)
```

Define rules allowing you to determine the following relations:

```
grandfather(X,Y), grandmother(X,Y), grandparent(X,Y),
son(X,Y), daughter(X,Y), child(X,Y),
grandson(X,Y), granddaughter(X,Y), grandchild(X,Y)
```

Exercise 2

Define the following predicates to determine if a list:

a. has an even number of elements

b. is a palindrome (i.e. it reads the same from left to right as it does from right to left).