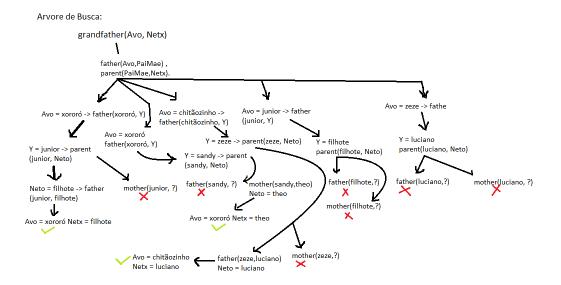
## Consultando: grandfather(Avo, Netx).

```
[trace] ?- grandfather(Avo, Netx)
        Call: (8) grandfather(_3692, _3694) ? creep
Call: (9) father(_3692, _3950) ? creep
Exit: (9) father(xororó, junior) ? creep
        Call: (9) parent(junior, _3694) ? creep
Call: (10) father(junior, _3694) ? creep
Exit: (10) father(junior, filhote) ? creep
Exit: (9) parent(junior, filhote) ? creep
         Exit: (8) grandfather(xororó, filhote) ? creep
Avo = xororó,
       tx = filhote;
Redo: (9) parent(junior, _3694) ? creep
Call: (10) mother(junior, _3694) ? creep
Fail: (10) mother(junior, _3694) ? creep
Fail: (9) parent(junior, _3694) ? creep
Redo: (9) father(_3692, _3950) ? creep
Exit: (9) father(xororó, sandy) ? creep
Call: (9) parent(sandy, _3694) ? creep
Call: (10) father(sandy, _3694) ? creep
Fail: (10) father(sandy, _3694) ? creep
Redo: (9) parent(sandy, _3694) ? creep
Redo: (9) parent(sandy, _3694) ? creep
Exit: (10) mother(sandy, _3694) ? creep
Exit: (10) mother(sandy, theo) ? creep
Exit: (9) parent(sandy, theo) ? creep
Exit: (8) grandfather(xororó, theo) ? creep
Exit: (8) grandfather(xororó, theo) ? creep
Netx = filhote ;
Avo = xororó,
Netx = theo
         Redo: (9) father(_3692, _3950) ? creep
         Exit: (9) father(chitaozinho, zeze) ? creep
        Call: (9) parent(zeze, _3694) ? creep
Call: (10) father(zeze, _3694) ? creep
Exit: (10) father(zeze, luciano) ? creep
Exit: (9) parent(zeze, luciano) ? creep
         Exit: (8) grandfather(chitaozinho, luciano) ? creep
Avo = chitaozinho,
Netx = luciano ;
        tx = luciano;
Redo: (9) parent(zeze, _3694) ? creep
Call: (10) mother(zeze, _3694) ? creep
Fail: (10) mother(zeze, _3694) ? creep
Fail: (9) parent(zeze, _3694) ? creep
Redo: (9) father(_3692, _3950) ? creep
Exit: (9) father(junior, filhote) ? creep
Call: (9) parent(filhote, _3694) ? creep
Call: (10) father(filhote, _3694) ? creep
Fail: (10) father(filhote, _3694) ? creep
Redo: (9) parent(filhote, _3694) ? creep
Call: (10) mother(filhote, _3694) ? creep
         Call: (10) mother(filhote, _3694) ? creep
         Fail: (10) mother(filhote, _3694) ? creep
Fail: (9) parent(filhote, _3694) ? creep
        Fail: (9) parent(filhote, _3694) ? cree
Redo: (9) father(_3692, _3950) ? creep
Exit: (9) father(zeze, luciano) ? creep
         Call: (9) parent(luciano, _3694) ? creep
        Call: (10) father(luciano, _3694) ? creep

Fail: (10) father(luciano, _3694) ? creep

Redo: (9) parent(luciano, _3694) ? creep

Call: (10) mother(luciano, _3694) ? creep
        Fail: (10) mother(luciano, _3694) ? creep
Fail: (9) parent(luciano, _3694) ? creep
Fail: (8) grandfather(_3692, _3694) ? creep
false.
```



Cuja árvore de busca traduz para:

```
Consultando: grandfather(xororó, Netx)
```

```
[trace] ?- grandfather(xororó, Netx).
Call: (8) grandfather(xororó, _980) ? creep
Call: (9) father(xororó, _1202) ? creep
Exit: (9) father(xororó, junior) ? creep
Call: (9) parent(junior, _980) ? creep
Call: (10) father(junior, _980) ? creep
Exit: (10) father(junior, filhote) ? creep
Exit: (9) parent(junior, filhote) ? creep
Exit: (8) grandfather(xororó, filhote) ? creep
Exit: (8) grandfather(xororó, filhote) ? creep
Netx = filhote;
Redo: (9) parent(junior, _980) ? creep
Call: (10) mother(junior, _980) ? creep
Fail: (10) mother(junior, _980) ? creep
Fail: (9) parent(junior, _980) ? creep
Exit: (9) father(xororó, sandy) ? creep
Call: (9) parent(sandy, _980) ? creep
Call: (10) father(sandy, _980) ? creep
Fail: (10) father(sandy, _980) ? creep
Call: (10) mother(sandy, _980) ? creep
Exit: (10) mother(sandy, _980) ? creep
Exi
```

Cuja árvore de busca traduz para:

```
Arvore de Busca:
                 grandfather(Avo, Netx)
                         father(Avo,PaiMae)
                         parent(PaiMae,Netx).
    Avo = xororó -> father(xororó, Y)
                           Avo = xororó
                          father(xororó, Y)
 Y = junior -> parent
                                                       = sandy -> parent
 (junior, Neto)
                                                     (sandy, Neto)
      ⇃
                                                     father(sandy, ?)
 Neto = filhote -> father
                                 mother(junior, ?)
 (junior, filhote)
Avo = xororó Netx = filhote
             [trace] ?- grandmother(Avo,Netx).
                     Call: (8) grandmother(_984, _986) ? creep
Call: (9) mother(_984, _1248) ? creep
Exit: (9) mother(noely, sandy) ? creep
Call: (9) parent(sandy, _986) ? creep
                     Call: (10) father(sandy, _986) ? creep

Fail: (10) father(sandy, _986) ? creep

Fail: (10) father(sandy, _986) ? creep

Redo: (9) parent(sandy, _986) ? creep

Call: (10) mother(sandy, _986) ? creep

Exit: (10) mother(sandy, theo) ? creep

Exit: (9) parent(sandy, theo) ? creep
                                                                                                                                                                  Consultando:
                                                                                                                                                                  grandmother
                                                                                                                                                                  (Avo, Netx)
                     Exit: (8) grandmother(noely, theo) ? creep
             Avo = noely,
           Avo = noely,
Netx = theo;
Redo: (9) mother(_984, _1248) ? creep
Exit: (9) mother(noely, junior) ? creep
Call: (9) parent(junior, _986) ? creep
Call: (10) father(junior, _986) ? creep
Exit: (10) father(junior, filhote) ? creep
Exit: (9) parent(junior, filhote) ? creep
Voit: (8) grandmother(noely, filhote) ? creep
                     Exit: (8) grandmother(noely, filhote) ? creep
             Avo = noely,
             Netx = filhote ;
                       Redo: (9) parent(junior, _986) ? creep
                     Call: (10) mother(junior, _986) ? creep

Fail: (10) mother(junior, _986) ? creep

Fail: (9) parent(junior, _986) ? creep

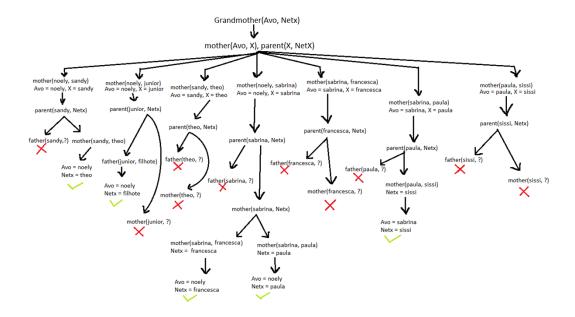
Redo: (9) mother(_984, _1248) ? creep

Exit: (9) mother(sandy, theo) ? creep
                    Exit: (9) mother(sandy, theo) ? creep
Call: (9) parent(theo, _986) ? creep
Call: (10) father(theo, _986) ? creep
Fail: (10) father(theo, _986) ? creep
Redo: (9) parent(theo, _986) ? creep
Call: (10) mother(theo, _986) ? creep
Fail: (10) mother(theo, _986) ? creep
Fail: (9) parent(theo, _986) ? creep
Redo: (9) mother(_984, _1248) ? creep
Exit: (9) mother(noely sabrina) ? cree
                     Exit: (9) mother(noely, sabrina) ? creep
Call: (9) parent(sabrina, _986) ? creep
                     Call: (10) father(sabrina, _986) ? creep
Fail: (10) father(sabrina, _986) ? creep
Redo: (9) parent(sabrina, _986) ? creep
Call: (10) mother(sabrina, _986) ? creep
Exit: (10) mother(sabrina, _986) ? creep
                     Exit: (9) parent(sabrina, francesca) ? creep
                     Exit: (8) grandmother(noely, francesca) ? creep
             Avo = noely,
             Netx = francesca
                       Redo: (10) mother(sabrina, _986) ? creep
                     Exit: (10) mother(sabrina, paula) ? creep
Exit: (9) parent(sabrina, paula) ? creep
                     Exit: (8) grandmother(noely, paula) ? creep
```

Avo = noely, Netx = paula

```
Redo: (9) mother(_984, _1248) ? creep
Exit: (9) mother(sabrina, francesca) ? creep
Call: (10) father(francesca, _986) ? creep
Call: (10) father(francesca, _986) ? creep
Fail: (10) father(francesca, _986) ? creep
Redo: (9) parent(francesca, _986) ? creep
Call: (10) mother(francesca, _986) ? creep
Fail: (10) mother(francesca, _986) ? creep
Fail: (9) parent(francesca, _986) ? creep
Redo: (9) mother(_984, _1248) ? creep
Exit: (9) mother(sabrina, paula) ? creep
Call: (9) parent(paula, _986) ? creep
Call: (10) father(paula, _986) ? creep
Fail: (10) father(paula, _986) ? creep
Redo: (9) parent(paula, _986) ? creep
Exit: (10) mother(paula, _986) ? creep
Exit: (10) mother(paula, sissi) ? creep
Exit: (8) grandmother(sabrina, sissi) ? creep
Exit: (9) parent(paula, sissi) ? creep
Exit: (9) mother(_984, _1248) ? creep
Exit: (9) mother(_984, _1248) ? creep
Call: (10) father(sissi, _986) ? creep
Call: (10) father(sissi, _986) ? creep
Fail: (10) mother(sissi, _986) ? creep
Call: (10) mother(sissi, _986) ? creep
Fail: (10) mother(sissi, _986) ? creep
```

Cuja árvore de busca traduz para:



## consultando: grandmother(noely, Netx)

```
[trace] ?- grandmother(noely, Netx).
      Call: (8) grandmother(noely, _1046) ? creep
     Call: (9) mother(noely, _1046) ? Cleep Exit: (9) mother(noely, _1272) ? creep Call: (9) parent(sandy, _1046) ? creep Call: (10) father(sandy, _1046) ? creep Fail: (10) father(sandy, _1046) ? creep Redo: (9) parent(sandy, _1046) ? creep Call: (10) mother(sandy, _1046) ? creep Call: (10) mother(sandy, _1046) ? creep
     Call: (10) mother(sandy, _1046) ? creep
Exit: (10) mother(sandy, theo) ? creep
Exit: (9) parent(sandy, theo) ? creep
      Exit: (8) grandmother(noely, theo) ? creep
Netx = theo ;
   Redo: (9) mother(noely, _1272) ? creep
      Exit: (9) mother(noely, junior) ? creep
      Call: (9) parent(junior, _1046) ? creep
     Call: (10) father(junior, _1046) ? creep
Exit: (10) father(junior, filhote) ? creep
Exit: (9) parent(junior, filhote) ? creep
     Exit: (8) grandmother(noely, filhote) ? creep
Netx = filhote ;
      Redo: (9) parent(junior, _1046) ? creep
      Call: (10) mother(junior, _1046) ? creep
     Fail: (10) mother(junior, _1046) ? creep
Fail: (9) parent(junior, _1046) ? creep
Redo: (9) mother(noely, _1272) ? creep
Exit: (9) mother(noely, sabrina) ? creep
      Call: (9) parent(sabrina, _1046) ? creep
     Call: (10) father(sabrina, _1046) ? creep
Fail: (10) father(sabrina, _1046) ? creep
Redo: (9) parent(sabrina, _1046) ? creep
     Call: (10) mother(sabrina, _1046) ? creep
Exit: (10) mother(sabrina, francesca) ? creep
Exit: (9) parent(sabrina, francesca) ? creep
      \mathbf{Exit}: (8) grandmother(noely, francesca) ? creep
Netx = francesca ;
      Redo: (10) mother(sabrina, _1046) ? creep
Exit: (10) mother(sabrina, paula) ? creep
      Exit: (9) parent(sabrina, paula)? creep
     Exit: (8) grandmother(noely, paula) ? creep
Netx = paula.
```

## cuja árvore de busca traduz para:

