

10.10

`:-use_module(library(clpfd)).`

generate & test  
vs  
constraint & generate

1. Declarar Variáveis

`length(Vars, 10)`

2. Declarar Domínios

`SingleVar in 1..5`  
`domain(Vars, 1, 10)`

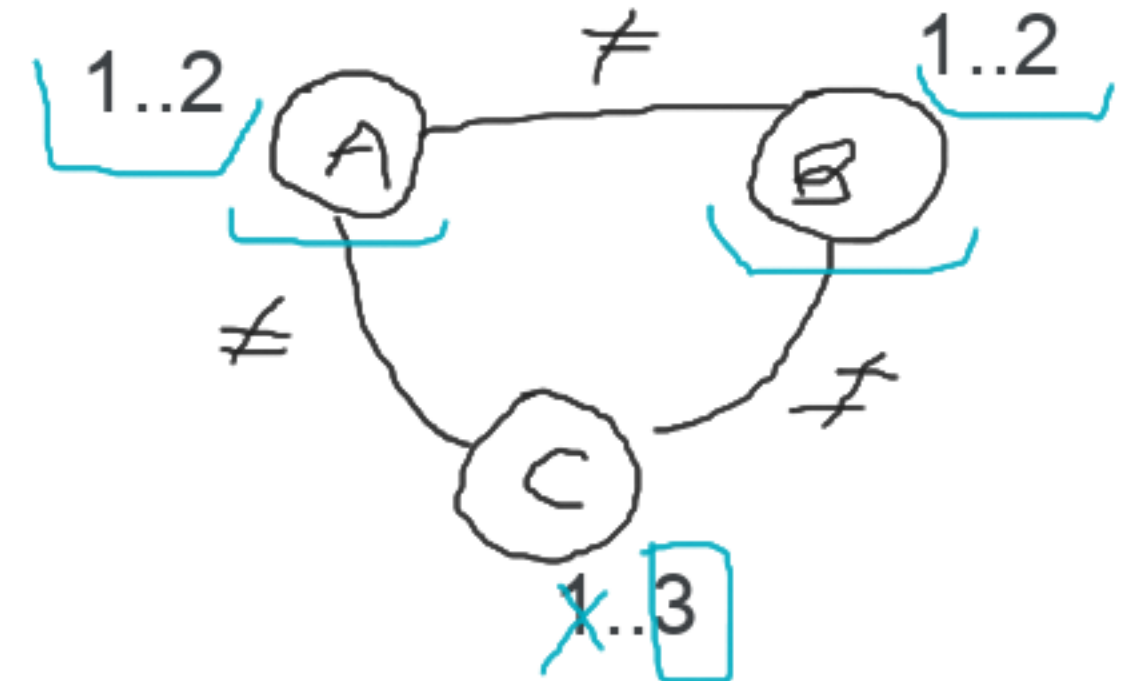
$X < Z,$   
 $A \text{ in } 1..5, B \text{ in } 1..5,$   
 $A \#< B,$        $A \text{ in } 1..4$   
                   $B \text{ in } 2..5$

3. Declarar Restrições

$\#$      $\# =$      $\# \backslash =$      $\# <$      $\# >$      $\# = <$      $\# > =$   
`all_different(ListOfVars)`    `all_distinct(Vars)`

4. Pesquisar Solução

`labeling( [ ], Vars)`

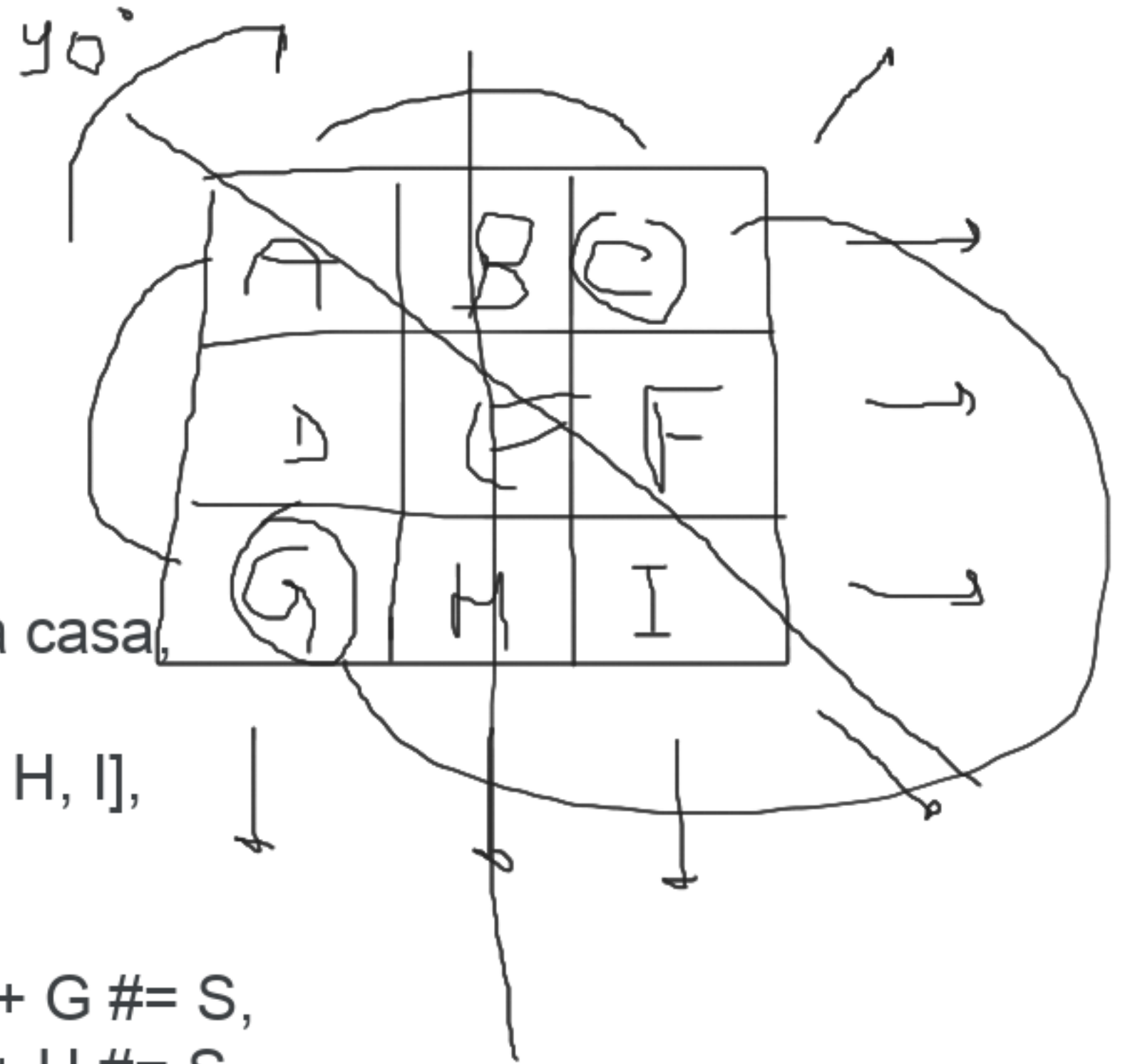


3 Vars diferentes, soma = produto

```
L = [A, B, C],  
domain(L, 1, 1000),  
all_distinct(L),  
A + B + C #= A * B * C,  
labeling([ ], L).
```

% Posição representa a casa,  
valor é o valor

```
L = [A, B, C, D, E, F, G, H, I],  
domain(L, 1, 9),  
all_distinct(L),  
A + B + C #= S, A + D + G #= S,  
D + E + F #= S, B + E + H #= S,  
G + H + I #= S, C + F + I #= S,  
A + E + I #= S, C + E + G #= S,  
A #< C, A #< G, C #< G,  
labeling([ ], L).
```



PUP  
PPP

6, 1, 7, 4, 5, 3

S E N D  
+ M O R E  
-----  
M O N E Y

