

Procedimientos

let

f = 2

in

let

g = proc(x,y) +(x,y,f)

in

let

h = (g 2 3)

f = 4

in

(g 2 3)

Problema

Determinismo

x y
2 3

f(x, y, f)
4x (10)

closure args body env

← donde fue creado

Procedimientos

let

f = 2

in

let

g = proc(x,y) +(x,y,f)

in

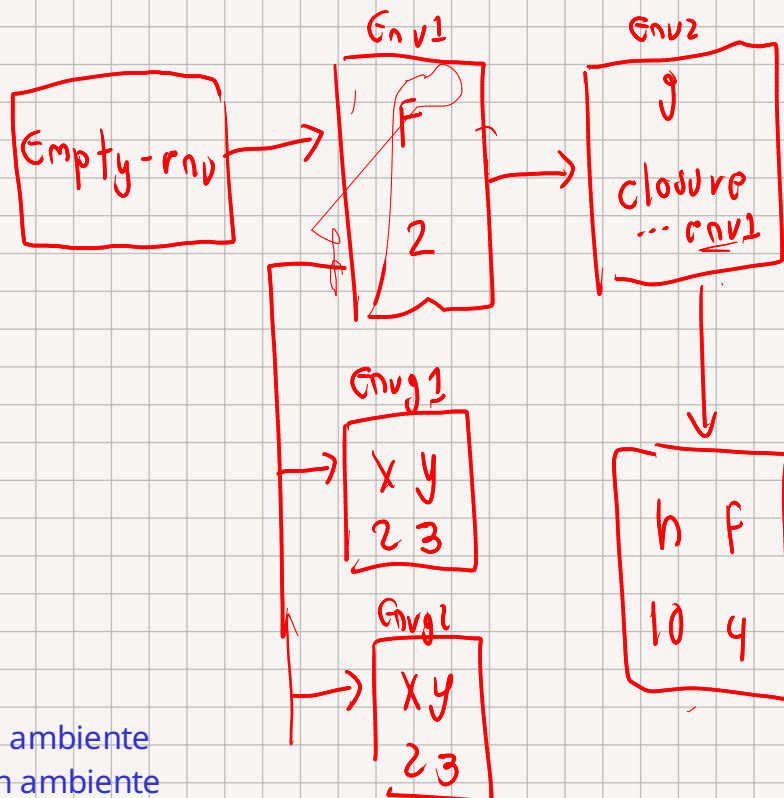
let

h = (g 2 3)

f = 4

in

(g 2 3)



Todo let (después in) genera un ambiente
Todo llamado a PROC genera un ambiente

Suponga el ambiente inicial (x,y,z,f) (12,3, (closure '(a b) +(a,b) empty-env))

<<

>>

let

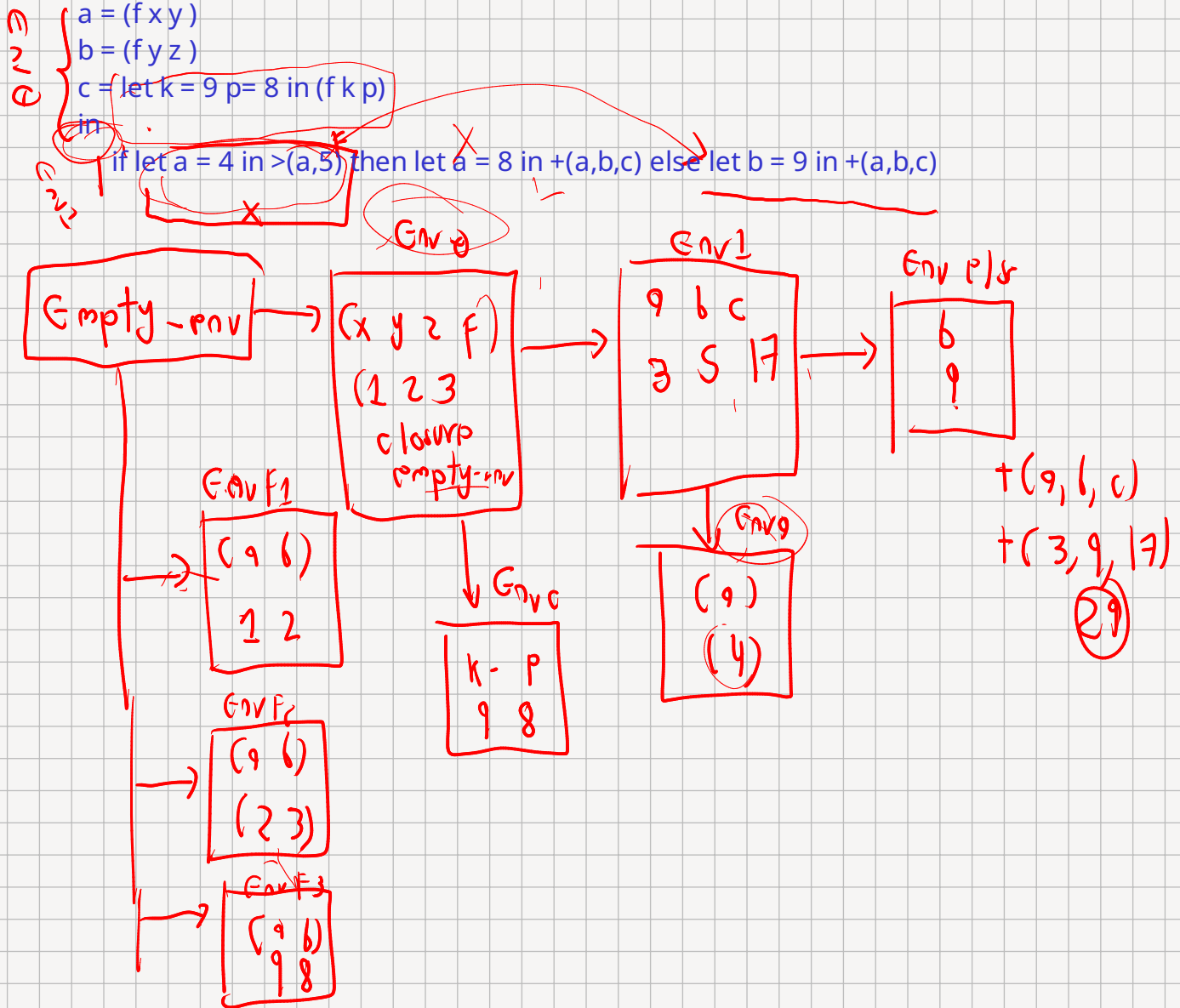
a = (f x y)

b = (f y z)

c = let k = 9 p = 8 in (f k p)

in

if let a = 4 in >(a,5) then let a = 8 in +(a,b,c) else let b = 9 in +(a,b,c)



Env0 (x,y,z,f) (2,4,6, closure '(x y z) +(x,*(y,z)) empty-env

Interpreter

```
<<
let x = 2 y = 4 z = 6
  f = proc(x,y,z) +(x,*(y,z))
in
```

>>

```
let
  a = (f x y z)
  b = let a = 8 in (f a x y)
  c = let a = let d = 9 in +(d,x) in (f a x y)
in
  let
    g = proc(a,b) (f a b x)
    h = proc(x,y) proc (f, y) +(a,b,c)
  in
    +((h a b) x y) , (h b c) y z)
```

8 4 6 1

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