

let $a = 4$ $b = 8$
in

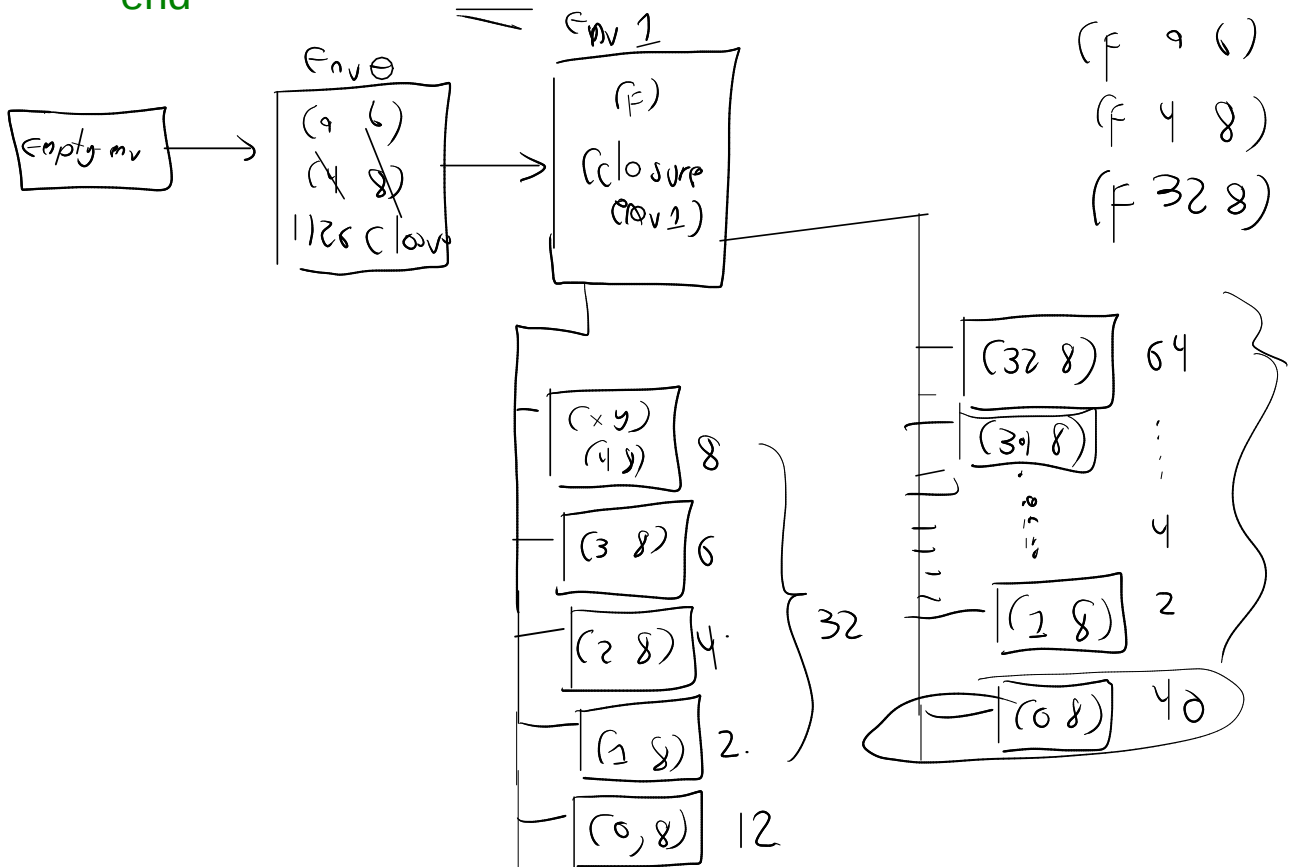
letrec $f(x,y) = \text{if } >(x,0) \text{ then } +(* (2,x), (f \text{ } -(x,1) \text{ } y)) \text{ else } +(a,b)$
in

begin

set $a = (f \text{ } a \text{ } b)$;
set $b = (f \text{ } a \text{ } b)$;
set $a = +(a,b)$;
set $b = \text{proc}(x,y) \text{ } +(x,y)$;
 $(b \text{ } a \text{ } a)$

end

2256



$$2 + 4 + 6 + 8 + 10 + 12 + 14 + 16 + 18 + 20 + 22 + 24 + \dots + 64$$

$$2 \sum_{i=1}^{32} i = \frac{n(n+1)}{2} = \frac{32(33)}{2} = 32 \times 33 = 1056 + 40 = 1096$$

9??

letrec

f(x,y) = if >(x,0) then +(*(2,y), (f -(x,1) y)) else let a = 4 in +(a,8)

in

let

a = 4

b = 8

in

let

k = proc(x) begin set a = +(a,x); set b = -(b,x); +(a,b) end

g = proc(x) begin set a = (f a b); +(a,b,x) end

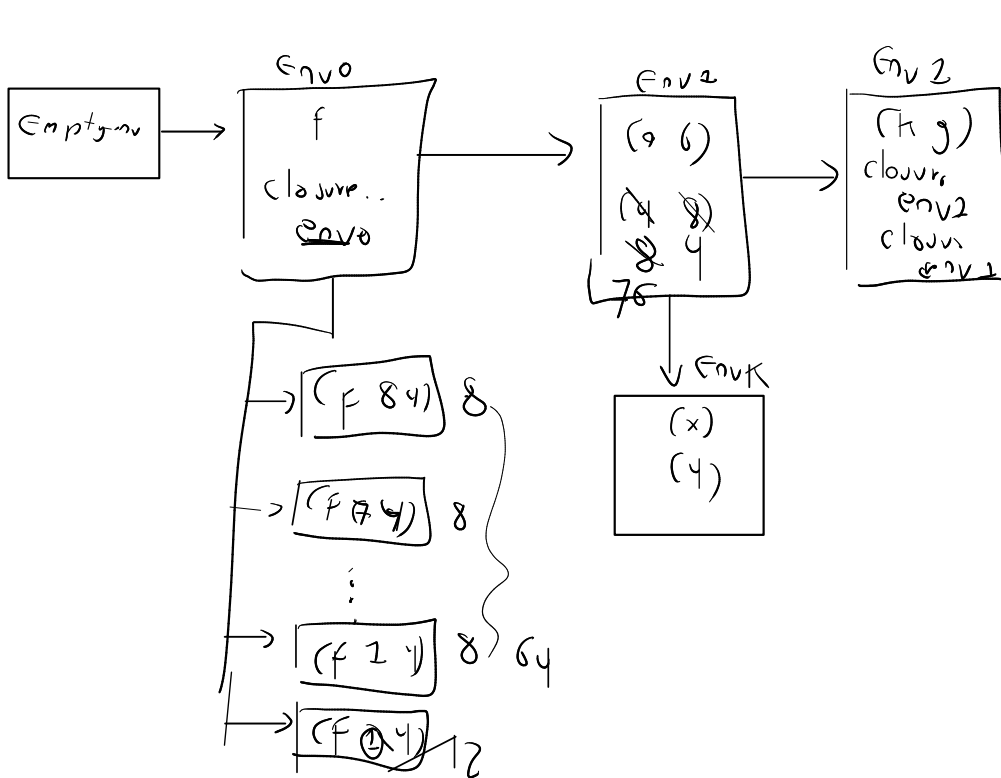
in

+((k a), (g b))

76

84

96



$+(k\ 9), (g\ 6)$
 $(k\ 4)$
 $+(12, (g\ 4))$

$g = (f\ 8\ 4)$

$+(12, 84)$

96

23

let

$x = \text{proc}(x,y) + (x,y)$

$y = \text{proc}(x,y) * (x,y)$

$z = 4$

in

letrec

$f(m,n) = \text{if } >(m,0) \text{ then } +(* (2,n), (f \text{ } -(m,1) \text{ } n)) \text{ else begin}$

set $x = (x \ 2)$
set $y = (y \ 2)$
 $+ (x,y)$

end

in

begin

set $z = (f \ z \ + (z,4));$
 $+ ((\text{proc } (x) + (x,2) \ x), (\text{proc } (y) + (y,5) + (x,y)))$

end

