

# Ejercicios PROC

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## 1 Ejercicio 3.20[\*]

In PROC, procedures have only one argument, but one can get the effect of multiple argument procedures by using procedures that return other procedures. For example, one might write code like

```
let f = proc (x)
  proc (y)...
  in ((f 3) 4)
```

This trick is called **Currying**, and the procedure is said to be **Curried**. Write a Curried procedure that takes two arguments and returns their sum. You can write  $x + y$  in our language by writing  $(x, (0, y))$ .

```
let function-name =
  proc (x)
    proc(y)
      -(x, -(0, y))
```

## 2 Ejercicio 3.27[\*]

Add a new kind of procedure called a **traceproc** to the language. A **traceproc** works exactly like a **proc**, except that it prints a trace message on entry and on exit.

```
;; Sintaxis concreta
Expression ::= trace-procedure(ID) Expression
;; Sintaxis abstracta
(trace-proc-exp var body)
;; Semantica
(value-of (trace-proc-exp var body)  $\rho$ ) = (trace-proc-val (procedure
var body  $\rho$ ))
```