

Esercizio 4:

```
type com =
  | ...
  | CRepeatUntilZero of ide * pseq

let rec csem: com -> env -> store -> (env * store) =
  fun c ev st ->
    match c with
    | ...
    | CRepeatUntilZero (ide,seq) ->
      let (maxloc,stf) = st
      let di = apply_env ev ide
      match di with
      | L l ->
        let (ev',(maxloc',stf')) = pssem seq ev st
        match stf' l with
        | Int 0 -> (ev,(maxloc,stf'))
        | Int i -> csem (CRepeatUntilZero (ide,seq)) ev (maxloc,stf')
        | _ -> type_error()
      | _ -> failwith "%A is not a variable" di

let l =
  [ Prog(
    Pseq(
      Cvar("x", Eint 98),
      Pseq(
        CRepeatUntilZero(
          "x",
          Pseq(Cassign("x", Eminus(Eide "x", Eint 1)), Pend)),
        Pend)
      ),
    Eide "x"
  )]
```