fmal 2 einstaklings

hir12

September 2022

1

```
;; Notkun: sum(x).
;; Fyrir: Listann (x1 x2 x3 ... xN).
;; Gildi: Talan (x1 + x2 + x3 + xN.
(define (sum x)
  (if(null? x) 0
     (+ (car x)
  (sum (cdr x))))
)
```

```
Welcome to DrRacket, version 8.6 [cs].
Language: R5RS; memory limit: 128 MB.
> (sum'(1 2 3))
6
>
```

2

```
;; Notkun: squaresum(x).
;; Fyrir: Listann (x1 x2 x3 ... xN).
;; Gildi: Talan (x1 * x1 + x2 *x2 + x3 * x3 + xN * xN).

(define(squaresum x)
  (if(null? x) 0)
  ;; Notkun: helpsum(n m)
  ;; Fyrir: Hjálparfall fyrir squaresum. Leggur saman veldistölur.
  ;; Gildi: Talan (x1 * x1 + x2 *x2 + x3 * x3 + xN * xN).
  (define(helpsum n m)
    (if(null? n) m
    (helpsum(cdr n)(+ (* (car n) (car n)) m))
  ))
  (helpsum x 0)
)
```

```
Welcome to DrRacket, version 8.6 [cs].
Language: R5RS; memory limit: 128 MB.
> (squaresum'(1 2 3))
14
>
```

3

```
;; Notkun: ((incall y)x)
;; Fyrir: y er tala, x=(x1 x2 ... xN) er listi talna sem y er löggð við.
;; Gildi: Talnalistinn (x1+y x2+y ... xN+y).
(define (incall y)
  ;; Notkun: (Helpin x)
  ;; Fyrir: x er listi (1 2 3)
  ;; Gildi: Leggur y við (x1, x2 ... xn.)
  (define (helpin x)
    (if (null?(cdr x))
        (list (+ y (car x)))
        (cons (+ y (car x))(helpin(cdr x)))
    )
  )
  helpin
)
((incall 3)'(1 2 3))
```

```
Welcome to DrRacket, version 8.6 [cs].
Language: R5RS; memory limit: 128 MB.
(4 5 6)
>
```