

fmal v5

hir12

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1 RealPowRecursive

```
;; Notkun: (rpr x y)  
;; Fyrir: x er jákvæð rauntala > 0, y er heiltala > 0  
;; Gildi: Rauntalan x í veldinu y  
(define (rpr x y )  
  (if (= y 0) 1.0  
      (if (= (remainder y 2) 0)  
          (* 1.0 (rpr (* 1.0 x x)(quotient y 2)))  
          (* 1.0 x (rpr (* 1.0 x x)(quotient(- y 1)2)))  
      )  
  )  
)  
(rpr(+ 1( expt 10 -10)) (rpr 10 10))
```

2 transpose-list

```
;; Notkun: (transpose-list z)  
;; Fyrir: z er listi jafnlangra lista,  
;; z=((x11 x12 ... x1N)  
;; (x21 x22 ... x2N)  
;; (x31 x32 ... x3N)  
;; .  
;; .  
;; .  
;; (xM1 xM2 ... xMN)  
;; )  
;; Gildi: Listinn sem er byltingin  
;; (transpose) af z, þ.e.  
;; ((x11 x21 ... xM1)  
;; (x12 x22 ... xM2)  
;; (x13 x23 ... xM3)  
;; .  
;; .
```

```

;; .
;; (x1N x2N ... xMN)
;; )

(define (transpose-list z)
  (if(null? (car z))
      '()
      (cons (map car z) (transpose-list (map cdr z)))
  )
)
(transpose-list'((1 2 3)(4 5 6)(7 8 9)))

```

```

;; líka hægt að gera eftirfarandi:
;; (define (transpose-list z)
;;   (apply map list z)
;; )

```

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:)

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