

`nth-element`

Exercise 1.6

If we check whether $n = 0$ before determining that *lst* is not empty, then we might take the `car` or `cdr` of an empty list in the recursive call.

Exercise 1.7

```
(define informative-report-list-too-short
  (lambda (lst n)
    (eopl:error 'nth-element
      "~s does not have ~s elements.~%"
      lst
      (+ n 1))))

(define nth-element
  (lambda (lst n)
    (define iter
      (lambda (l m)
        (if (null? l)
            (informative-report-list-too-short lst n)
            (if (zero? m)
                (car l)
                (iter (cdr l) (- m 1))))))
    (iter lst n)))
```