

Exercise 2.23.

The procedure `for-each` is similar to `map`. It takes as arguments a procedure and a list of elements. However, rather than forming a list of the results, `for-each` just applies the procedure to each of the elements in turn, from left to right. The values returned by applying the procedure to the elements are not used at all—`for-each` is used with procedures that perform an action, such as printing. For example,

```
(for-each (lambda (x) (newline) (display x))
          (list 57 321 88))

57
321
88
```

The value returned by the call to `for-each` (not illustrated above) can be something arbitrary, such as `true`. Give an implementation of `for-each`.

Answer.

```
(define (for-each proc items)
  (cond ((null? items) #t)
        (else
         (proc (car items))
          (for-each proc (cdr items))))))
```

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