Exercise 2.17.

Define a procedure `last-pair` that returns the list that contains only the last element of a given (nonempty) list:

```
(last-pair (list 23 72 249 34))
(34)
```

Answer.

Before setting out to devise the procedure `last-pair`, we'd better clarify an subtle notion: a list that contains only the last element of a given list is different from the last element of a list. For example, it is the list `(34)` above rather than its element `34` that meets our need.

We can consider the procedure `last-pair` in a recursive way:

- If a list contains only one element, in other words, the `cdr` of the list is an empty list, then just return the list.
- Otherwise, return the `last-pair` of the `cdr` of the list.

```
(define (last-pair items)
  (if (null? (cdr items))
      items
      (last-pair (cdr items))))
```