MC28 Homework 4

Due October 25, 1995

1. [§3.3.1] Do exercise 3.12 on page 203 of the textbook.
2. [§3.3.1] Do exercise 3.16 on page 206 of the textbook.
3. [§3.3.3] As discussed in class, it would be preferable to use the one-dimensional table ADT in implementing the two-dimensional tables, rather than doing it "by hand" as the textbook does. This could be done as follows; fill in the missing portions of `insert!`:

```
(define make-2d-table
  (lambda ()
    (make-table)))

(define lookup-2d
  (lambda (key-1 key-2 table)
    (let ((subtable (lookup key-1 table)))
      (if (null? subtable)
          nil
          (lookup key-2 subtable)))))

(define insert-2d!
  (lambda (key-1 key-2 value table)
    (let ((subtable ________________________________________))
      (if (null? subtable)
          (let ((new-subtable ________________________________________))
            ________________________________________
            ________________________________________)
          ________________________________________))))
```