

!!?!?!?

Problem 1:

Write a Scheme function that takes a list as a parameter and returns a copy of the list with the last element removed.

```
(define (butlast lst)
  (reverse (rest (reverse lst))))
```

Problem 2:

Write your own implementation of the Scheme built-in function fold-right.

```
(define (fold-right binary-procedure initial-value list-arg)
  (if (= 1 (length list-arg))
      (binary-procedure (car list-arg) initial-value)
      (binary-procedure
        (car list-arg)
        (fold-right
          binary-procedure
          initial-value
          (cdr list-arg)))))
```

Problem 3: Chapter 5, Problem 8

Part (a): *Assuming static scoping, which declaration of **x** is the correct one for a reference to **x** in the following:*

i Sub1

ii Sub2

iii Sub3

Part (b): *Repeat part a, but assume dynamic scoping.*

a *i* Sub1

ii Sub1

iii Main

b *i* Sub1

ii Sub1

iii Sub1

Problem 4: Chapter 5, Problem 9

*What value of **x** is printed in procedure **Sub1** under static and dynamic scoping rules?*

Under static scoping, 5 is printed. Under dynamic scoping, 10 is printed.