1. Given below is a simplified version of the `make-account` procedure on page 223 of Abelson and Sussman.

```
(define (make-account balance)
  (define (withdraw amount)
    (set! balance (- balance amount)) balance)
  (define (deposit amount)
    (set! balance (+ balance amount)) balance)
  (define (dispatch msg)
    (cond
      ((eq? msg 'withdraw) withdraw)
      ((eq? msg 'deposit) deposit) ) )
  dispatch)
```

Fill in the blank in the following code so that the result works exactly the same as the `make-account` procedure above, that is, responds to the same messages and produces the same return values. The differences between the two procedures are that the inside of `make-account` above is enclosed in the `let` below, and the names of the parameter to `make-account` are different.

```
(define (make-account init-amount)
  (let ( underbar             )
    (define (withdraw amount)
      (set! balance (- balance amount)) balance)
    (define (deposit amount)
      (set! balance (+ balance amount)) balance)
    (define (dispatch msg)
      (cond
        ((eq? msg 'withdraw) withdraw)
        ((eq? msg 'deposit) deposit) ) )
    dispatch) )
```

2. Modify either version of `make-account` so that, given the message `balance`, it returns the current account balance, and given the message `init-balance`, it returns the amount with which the account was initially created. For example:

```
> (define acc (make-account 100)
acc
> (acc 'balance)
100
```

Continued on next page...

Lab Assignment 4.2 continued:

3. Modify `make-account` so that, given the message `transactions`, it returns a list of all transactions made since the account was opened. For example:

```
> (define acc (make-account 100))
acc
> ((acc 'withdraw) 50)
50
> ((acc 'deposit) 10)
60
> (acc 'transactions)
((withdraw 50) (deposit 10))
```

4. Given this definition:

```
(define (plus1 var)
  (set! var (+ var 1))
  var)
```

Show the result of computing

```
(plus1 5)
```

using the substitution model. That is, show the expression that results from substituting 5 for `var` in the body of `plus1`, and then compute the value of the resulting expression. What is the actual result from Scheme?