Quiz 2 Solutions

Problem 1

(1 2)  
(3 1 2)  
(4 2)  
(3 4 2)  
(5 2)  
(3 5 2)

Problem 2

7, 2, 27, 27

Problem 3

false  false  true  
true  true  true  
true  true  true  
false  false  true

Problem 4

(define (double-list lst)
  (scale-list lst 2))

(define (double-list lst)
  (map (lambda (x) (* x 2)) lst))

Problem 5

(define (count-times s tree)
  (accumulate tree tree
               (lambda (x) (if (eqv? x s) 1 0))
               +
               0))

Problem 6

(set! current (car old))
(set! old (cdr old))
current

Problem 7

(define (spiral painter n)
  (if (= n 0)
      painter
      (beside (below (rotate180 (spiral painter (- n 1)))
                 (rotate90 painter))
              painter)))

Problem 8

<1>  P2  
<2>  L1  
<3>  E1  
<4>  GE  
<5>  E1  
<6>  x  
<7>  E3  
<8>  0  
<9>  10  
<10> E1  
<11> 10  
<12> GE  
<13> P1  
<14> P3