

Aufgabe 6-2:

a)

```
(define f (lambda (x) (local [(define y 3)] (* x y))))  
(f 3)
```

CONST, APP

→ (local [(define y 3)] (* 3 y))

LOCAL

→ (define y_0 3)
(* 3 y_0)

PROG, PRIM

→ (* 3 y_0)

CONST

→ (* 3 3)

PRIM

→ 9

b)

```
(define f (lambda (x) (local [(define y 5)]  
                        (+ x (local [(define x 3)] (+ x y))))))  
(f 7)
```

CONST, APP

→ (local [(define y 5)]
 (+ 7 (local [(define x 3)] (+ x y))))

LOCAL

→ (define y_0 5)
 (+ 7 (local [(define x 3)] (+ x y_0)))

PROG

→ (+ 7 (local [(define x 3)] (+ x y_0)))

LOCAL

→ (define x_0 3)
 (+ 7 (+ x_0 y_0))

PROG

→ (+ 7 (+ x_0 y_0))

CONST

→ (+ 7 (+ 3 5))

PRIM

→ 15