

Question 4

Question 4

1/1 point (graded)

```

(define (foo x)
  (local [(define (bar y) (+ x y))]
    (+ x (bar (* 2 x)))))
(list (foo 2) (foo 3))

```

→

```

(list
  (local [(define (bar y) (+ 2 y))]
    (+ 2 (bar (* 2 2)))))
(foo 3))

```

→

```

(define (bar_0 y) (+ 2 y))
(list (+ 2 (bar_0 (* 2 2)))
      (foo 3))

```

→

```

(define (bar_0 y) (+ 2 y))
(list (+ 2 (bar_0 4))
      (foo 3))

```

What is the result of the next step of the evaluation?



```

(define (bar_0 (+ 2 y))
  (list 8 (foo 3)))

```



```

(define (bar_0 (+ 2 y))
  (list (+ 2 6) (foo 3)))

```



```

(define (bar_0 (+ 2 y))
  (list (+ 2 (+ 2 4)) (foo 3)))

```



Explanation

Now we replace the function call expression `(bar_0 4)` with the body of the function in which every occurrence of the parameter `y` has been replaced by `4`.

Submit

Answers are displayed within the problem