

1.

a. What is a special form?

A special form is an expression that follows special evaluation rules.

In special form not all the expressions have to be evaluated.

b. How might we simulate polymorphism in a functional language such as Scheme?

In scheme we can have procedures that are used on data structure like lists, and in lists any data can be stored, making list procedures polymorphic. Furthermore, procedures can receive other procedures as variables. This is another way of simulating polymorphism.

c. `((lambda (n)`

`((lambda (n)`

`(+ n 1))`

`((lambda (n)(+ n 1))n)))10)`

d. What is the difference between recursion and iteration?

Recursion opens up a new frame for the computation every time the procedure is called.

Iteration uses the same frame. Both return the same value but iteration is more space efficient since it only uses one frame.