Sequence operations

A linked list is the sequence,

so it should behave like a sequence

behaves in order to make that happen

we’d like to support both element selection

using square brackets ([]) and the built-in len

function. Now these are special method names.

Let **get invoked** automatically by Python when

a user-defined class is followed by the element

selection or passed in as an argument to the

built-in Len function, so all we have to do is

define how to get an item out of a linked list

or how to compute the length of a linked list

in order to have linked list instances operate

in the same way as a built-in list with the Len

and element selection operators, so linked lists

are sequences, in addition to the definition

that we have so far which is the same I showeed

you before but I’ve abbreviated the assert

statement because we just don’t need to

worry about that right now, do we we’re

going to define two new methods, one is called

the get item method. The get item method

gets the element at index I, now if this ever

gets invoked, we know that the linked list

is not empty, if someone tried to look up an

item in the empty list, they would just be looking

it up in the empty tuple, they get an error

so we know there’s at least one element here

and the question is that the element that

the users asking for or not, well the index i

tells us if they want the oth element, that’s

self.first so we just return it. Otherwise we

let rest take care of the hard work, so element

i-1 (I minus 1) and the rest of the list is the same

as element I in the whole list. This element

selection syntax here is actually going to

invoke the same method assuming self.rest

is a link class which by the way it is or it’s

empty if