

Lisp Homework #4: MYREPLACE

You are to write a LISP function, MYREPLACE which works as follows --

(myreplace old new target) replaces all occurrences of old within target with new

(myreplace 'name 'joe '(name is my favorite name)) => (joe is my favorite joe)

(myreplace 'name 'joe 'name) => joe

(myreplace 'name 'joe nil) => nil

You may assume that old is an atom (although you don't have to).

You should assume that new is an atom or a (possibly empty) list.

You should assume that target is an atom or a (possibly empty) list.

Your function should work at all levels of nesting, i.e. this should work:

(myreplace 'name 'joe '(name (name is name) name)) => (joe (joe is a joe) joe)

Turn this in via EASEL.

There is a built in function which does this operation. You cannot use it. Build it out of basic CAR, CDR, CONS, LIST etc. functions.

This function will be tested on the Taz2 CLISP implementation.