

Practice Problems, March 2

More List Problems

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Fill in the code for these recursive procedures.

1. The **append** procedure joins two lists together, e.g. (append (list 1 2) (list 3 4)) => (1 2 3 4)
 - a. recursive process

- b. iterative recursive process

2. The **reverse** procedure reverses the order of elements in a list, e.g. (reverse '((1 2) 3 (4 5))) => '((4 5) 3 (1 2)) Hint: Use append.
 - a. recursive process

b. iterative recursive process

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3. The **deep-reverse** procedure creates a new list with the *every* element in the list recursively reversed as well; e.g. (deep-reverse '((1 2) 3 (4 5))) => '((5 4) 3 (2 1))
(deep-reverse '((1 (2 3)) 4 (5 (6 7)))) => '((7 6) 5) 4 ((3 2) 1))