

CS3L: Introduction to Symbolic Programming

Lecture 27:
Review – most children and truth about cons

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Today

- Generalized List Recursion
- The truth about cons

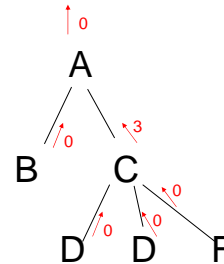


most-children

```
(define (number-of-most-children tree)
  (if (leaf? tree)
      0
      (reduce max
              (cons (length (children tree))
                    (map
                     number-of-most-children
                     (children tree))))))
```



most-children



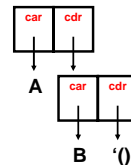
The truth about cons

- $(\text{cons } 'B \ '()) \rightarrow '(B)$



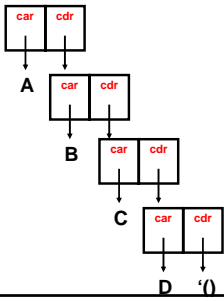
The truth about cons

- $(\text{cons } 'A \ '(B)) \rightarrow '(A B)$



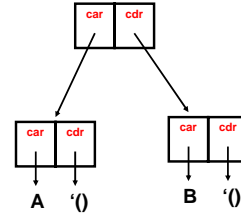
The truth about cons

- $(\text{cons } 'A \ '(B C D)) \rightarrow '(A B C D)$



The truth about cons

- $(\text{cons } '(A) \ '(B)) \rightarrow '((A) B)$



The truth about cons

- $(\text{cons } 'A \ 'B) \rightarrow '(A . B)$

