

$$n! = n \cdot [(n-1) \cdot (n-2) \cdot \dots \cdot 1]$$

$$0! = 1$$

$$n! = n (n-1)!$$

list: '()

or (cons elt list)

length list

$$= 0 \text{ if list} == '()$$

$$1 + \text{length of the rest}$$

(sum list)

$$0 \text{ if list is '()}$$

$$(\text{car list}) + \text{sum of rest otherwise}$$