

--partialSums ns: Returns the list of partial sums of the numeric list 'ns'.

partialSums = partialSums' 0

--partialSums' acc ns : Adds each number in the list ns to the value of acc,

-- a number at a time

partialSums' = \acc -> \ns -> if null ns then

 ns

 else

 head ns + acc:partialSums' (head ns +

 acc) (tail ns)

--powers n: The list of all positive powers of the number 'n'.

powers = \n -> powers' n n

--powers' n x: Multiplies the number 'n' by 'x' repeatedly where 'n'

-- increases by a multiple of n and puts each answer in a list.

powers' = \n -> \x -> n:powers' (n*x) x

--factorials: Gives the list of all positive integers.

factorials = factorials' 1 1

--factorials' n1 n2: multiplies 'n1' by 'n2' repeatedly where

-- eachtime 'n2' is incremented each time.

factorials' = \n1 -> \n2 -> n1 * n2: factorials' (n1*n2) (n2+1)