1. Using memoization, define a function factorial that takes one integer $n$ and computes its factorial. You may assume the argument is always a non-negative integer. For example, (factorial 6) should return 720 and (factorial 0) should return 1.
2. Write a stream positive_odd_stream which will generate positive odd numbers when called.
3. Write a stream alternating_nums which will generate natural numbers alternating in its sign (i.e. $1,-2,3,-4,5,-6 \ldots$.
4. Write a stream repeat_three_times which repeats each positive number 3 times before continue. (i.e. 1, 1, 1, 2, 2, 2, 3, 3, $3 .$. )
