CSCI 325
Spring 2013
Bowring

HW4 – DUE 10 AM 1.Feb.2013

Instructions:
Submit **HW4_[lastname].pl** by dropping it into your Assignments folder on Google Drive. Please document your code.

Define the following Prolog predicates:

1. **addatrear**(X, oldlist, newlist).
   The item X is added at the rear of the list oldlist to produce the list newlist.
   For example the call
        addatrear(d, [a, b, c], List)
   produces the response
        List = [a, b, c, d]

2. **deletefromrear**(oldlist, X, newlist).
   The last item is removed from the list oldlist to produce the list newlist and is also returned as X. For example the call
        deletefromrear([a, b, c, d], Item, List)
   produces the response
        Item = d
        List = [a, b, c]

3. **rotateright**(oldlist, newlist).
   The first item in oldlist is removed from the front of oldlist and added to the rear of oldlist to produce the list newlist. That is, the first item is "rotated" to the right.
   For example the call
        rotateright([a, b, c, d], List)
   produces the response
        List = [b, c, d, a]

4. **rotateleft**(oldlist, newlist).
   The last item in oldlist is removed from the rear of oldlist and added to the front of oldlist to produce the list newlist. That is, the last item is "rotated" to the left. For example the call
        rotateleft([a, b, c, d], List)
   produces the response
        List = [d, a, b, c]