CSC148 Summer 2016 Quiz 09 (15 minutes)

First_name …………………………………… **Last_name** ………………………….. **Lab_room#** ………………

Define a function `remove_duplicates`, which takes a ~~sorted list,~~ and returns a new list with the same items as the original, but without duplicates. Note that this function does not mutate the original list.

change
∴ Do NOT change original list

Important note: take advantage of the fact that the input list is sorted, to write an efficient code.

```
def remove_duplicates(lst):
    """
    Return a sorted list containing the same values as <lst>, but without
        duplicates.

    Precondition: <lst> is sorted.

    :param lst: a sorted list
    :type lst: list
    :rtype: list

    >>> remove_duplicates([1, 2, 2, 2, 3, 10, 10, 20])
    [1, 2, 3, 10, 20]
    """
```

new_lst = [ ]

temp = lst [0]

new_lst. append (temp)

if len (lst) > 0; ← saftey check.

for item in lst:

   if temp == item:

      pass   no need

   ~~if~~ else: ~~# temp != item :~~

      temp = item.

      new_lst. append (temp)

return new_lst.

j ... n-2.

for i in range (len (lst) -1):

   if lst[i] ≠ lst [i+1].

      result. append

         (lst [i+1])

Next one is not
current one.

return result.