Python for Math and Stat Fall 2023
Exam 1

1.

Assume that each element of nouns consists of at least 2 characters.

Example:
plurals(['boat', 'iris', 'bench']) returns ['boats', 'irises', 'benches'].

Solution:

```
def plurals(nouns):
    result = []
    for n in nouns:
        if n[-1] == 's' or n[-2:] == 'ch':
            result.append(n + 'es')
        else:
            result.append(n + 's')
    return result
```

4. (10 pts) Write a function **middle(nums)** that takes a non-empty list of numbers and returns

- the number in the middle position of the list if the list has an odd number of elements, or
- the average of the two numbers in the middle positions if the list has an even number of elements.

Assume that each element of nums is an int or float.

Example:
middle([4, -3, 80, 6, 7.2]) returns 80.
middle([4, -3, 80, 85, 6, 7.2]) returns 82.5.

Solution:

```
def middle(nums):
    numsct = len(nums)
    mid = numsct // 2

    if numsct % 2 == 1:
        return nums[mid]
    else:
        return (nums[mid-1] + nums[mid]) / 2
```