CSC108H Worksheet: For Loops Over Lists

For each function, complete the examples in the docstring and then complete the function body.

1. ```
def collect_underperformers(nums, threshold):
    """ (list of number, int) -> list of number

    Return a new list consisting of those numbers in nums that are below threshold,
    in the same order as in nums.

    >>> collect_underperformers([1, 2, 3, 4], 3)
    [1, 2]
    >>> collect_underperformers([1, 2, 108, 3, 4], 50)
```
   ```
    ┌─────────────────────────────────────┐
    │   │
    └─────────────────────────────────────┘
```
   ```
    >>> collect_underperformers([], 7)
```
   ```
    ┌─────────────────────────────────────┐
    │   │
    └─────────────────────────────────────┘
    """
```

2. ```
def scale_midterm_grades(grades, multiplier, bonus):
    """ (list of number, number, number) -> NoneType

    Modify each grade in grades by multiplying it by multiplier and then
    adding bonus. Cap grades at 100.

    >>> grades = [45, 50, 55, 95]
    >>> scale_midterm_grades(grades, 1, 10)
    >>> grades
```
   ```
    ┌─────────────────────────────────────┐
    │                                     │
    └─────────────────────────────────────┘
    """
```