

Recursion Practice 1 | CSCI 203 | Created by: Evan Peck Revised: Xiannong Meng

1. Given an integer n , return the sum of numbers from 1 to n . For example,

- `one_to_sum(3)` should return 6 ($1+2+3 == 6$)
- `one_to_sum(5)` should return 15 ($1+2+3+4+5 == 15$)

2. Given a list of numbers `num_list`, return the sum of all the numbers in `num_list`. For example,

- `sum_list([2, 6, 9])` should return 17
- `sum_list([4])` should return 4

3. Given an integer n , return a list containing the first n multiples of 5. For example,

- `mult_of_five(1)` should return [5]
- `mult_of_five(3)` should return [5, 10, 15]

4. Given the base b and an exponent n , compute base to the power of n . For example,

- `power_n(2, 2)` should return 4
- `power_n(2, 3)` should return 8
- `power_n(3, 2)` should return 9

5. Given a string `my_string`, return a new string in which each letter is doubled. For example,

- `double_letters("hi")` should return `"hhii"`
- `double_letters("hello")` should return `"hheelllloo"`

6. Given a string `my_string`, return a string WITHOUT all the letter x's. For example,

- `no_x("x1xx2x3")` should return `"123"`
- `no_x("xxx")` should return `""`

7. Given a string `my_string`, return a string in which all the characters are separated by `*`. For example,

- `all_star("hello")` should return `"h*e*I*I*o"`
- `all_star("hi")` should return `"h*i"`