

5.1 Motivation: Adding Up Numbers

RECURSION:

- Powerful way of thinking!!! 🤖💪

POSSIBLE APPROACHES TO ADDING UP NUMBERS?

1. Every new [nesting list layer](#) = new [layer to for loop](#)
 - The structure of data is mirrored in the structure of the code which operates it

```
def sum_list3(lst: List[List[List[int]]]) -> int:
    """Return the sum of the items in a list of lists of lists of numbers.

    >>> sum_list3([[1], [10, 20], [1, 2, 3]], [[2, 3], [4, 5]])
    51
    """
    s = 0
    for list_of_lists_of_nums in lst:
        for list_of_nums in list_of_lists_of_nums:
            for num in list_of_nums:
                s += num
    return s
```

2. A [helper function per nesting layer](#)...
 - You have to hard code every layer as a helper function

