Chapter 16

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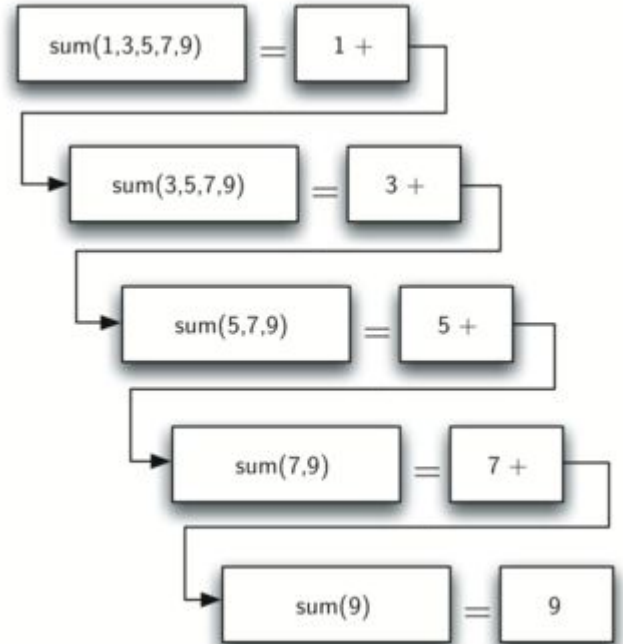Computer Science Department - CSC-148

Recursion

- Recursion is a method of solving problems that involves breaking a problem down into smaller and smaller subproblems until you get to a small enough problem that it can be solved trivially.
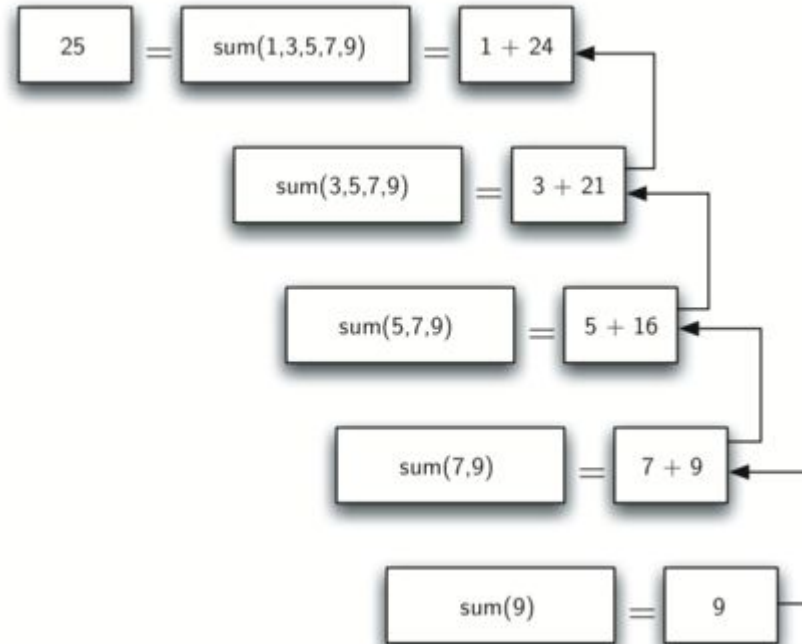- Usually recursion involves a function calling itself

Example of list

```python
def listsum(numList):
    theSum = 0
    for i in numList:
        theSum = theSum + i
    return theSum

print(listsum([1,3,5,7,9]))
```

```
def listsum(numList):
    if len(numList) == 1:
        return numList[0]
    else:
        return numList[0] + listsum(numList[1:])

print(listsum([1,3,5,7,9]))
```

How recursive call works

Slides & Material

razaulmustafa.us/cs148/