```python
# sum_numbers1.py
#
# ICS 32 Winter 2014
# Code Example
#
# This function sums the numbers in a flat list of integers.  By "flat list",
# I mean that the list no sublists (i.e., every element is an integer).

def sum_numbers(numlist: [int]) -> int:
    '''Adds up the integers in a list of integers'''
    sum = 0

    for num in numlist:
        sum += num

    return sum



assert(sum_numbers([1, 2, 3, 4, 5]) == 15)
assert(sum_numbers([5, 8, 9, 3]) == 25)
assert(sum_numbers([4]) == 4)
assert(sum_numbers([]) == 0)
```