

# 12930 - LAB 07

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## Instructions

1. Access the auto-grader at <https://c200.luddy.indiana.edu>
2. Please write the code for the problems in python language
3. The code should be readable with variables named meaningfully
4. Plagiarism is unacceptable and we have ways to find it, so do not do it
5. Don't change the function signature (name of the function and number and types of arguments) provided in this file.
6. Once you pass all the tests on the auto grader, show your work to the teaching assistant

## Problem

### Question

Given an integer  $n$ , return the least number of perfect square numbers that sum to  $n$ .

A perfect square is an integer that is the square of an integer; in other words, it is the product of some integer with itself. For example, 1, 4, 9, and 16 are perfect squares while 3 and 11 are not.

### Test cases

1) input: 12  
output: 3  
Explanation:  $12 = 4 + 4 + 4$   
2) input:13  
output: 2  
Explanation:  $13 = 4 + 9$

### Function signature

```
def numSquares(self, n):  
    **your logic**  
    return
```