# Counting Squares

**oj.dcs.upd.edu.ph**/problem/countingsquares

## Problem Statement

Given positive integers n$n$ and k$k$, how many k×k$k \times k$ squares are there in an n×n$n \times n$ grid?

For example, a 3×3$3 \times 3$ square contains four 2×2$2 \times 2$ squares:

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```
+--+--+--+    +--+--+--+    +--+--+--+    +--+--+--+
|     |  |    |  |     |    |        |    |        |
+  1  +  +    +  +  2  +    +--+--+  +    +  +--+--+
|     |  |    |  |     |    |     |  |    |  |     |
+--+--+  +    +  +--+--+    +  3  +  +    +  +  4  +
|        |    |        |    |     |  |    |  |     |
+--+--+--+    +--+--+--+    +--+--+--+    +--+--+--+
```

## Task Details

Your task is to implement a function named `num_subsquares`, which should look like this:

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```
def num_subsquares(n, k):
    return ...
```

Here, you only need to replace the `...` part with a **Python expression**.

The function must return an integer denoting the answer.

Your source code must have at most 100100 bytes.

## Examples

**Example 1 Function Call**

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```
num_subsquares(3, 2)
```

**Example 1 Return Value**

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```
4
```

### Constraints

- The function `num_subsquares` will be called at most $10410^4$ times.
- $1 \le k \le n \le 10201 \le k \le n \le 10^{20}$

### Scoring

**Note:** New tests may be added and all submissions may be rejudged at a later time. (All future tests will satisfy the constraints.)

- You get $5050$ ❤️ points if you solve all test cases where:
  - $k=1k = 1$
- You get $5050$ ❤️ points if you solve all test cases where:
  - $k \le 2k \le 2$
- You get $100100$ ❤️ points if you solve all test cases.

Report an issue

## Clarifications

No clarifications have been made at this time.