Problem 3602: Hexadecimal and Hexatrigesimal Conversion

Problem Information

Difficulty: Easy
Acceptance Rate: 80.35%
Paid Only: No
Tags: Math, String

Problem Description

You are given an integer `n`.

Return the concatenation of the **hexadecimal** representation of `n2` and the **hexatrigesimal** representation of `n3`.

A **hexadecimal** number is defined as a base-16 numeral system that uses the digits `0 - 9` and the uppercase letters `A - F` to represent values from 0 to 15.

A **hexatrigesimal** number is defined as a base-36 numeral system that uses the digits `0 - 9` and the uppercase letters `A - Z` to represent values from 0 to 35.

Example 1:

Input: n = 13

Output: "A91P1"

Explanation:

* `n2 = 13 * 13 = 169`. In hexadecimal, it converts to `(10 * 16) + 9 = 169`, which corresponds to `"A9"`. * `n3 = 13 * 13 * 13 = 2197`. In hexatrigesimal, it converts to `(1 * 362) + (25 * 36) + 1 = 2197`, which corresponds to `"1P1"`. * Concatenating both results gives `"A9" + "1P1" = "A91P1"`.

Example 2:

Input: n = 36

Output: "5101000"

Explanation:

* `n2 = 36 * 36 = 1296`. In hexadecimal, it converts to `(5 * 162) + (1 * 16) + 0 = 1296`, which corresponds to `"510"`. * `n3 = 36 * 36 * 36 = 46656`. In hexatrigesimal, it converts to `(1 * 363) + (0 * 362) + (0 * 36) + 0 = 46656`, which corresponds to `"1000"`. * Concatenating both results gives `"510" + "1000" = "5101000"`.

Constraints:

* `1 <= n <= 1000`

Code Snippets

C++:

```
class Solution {
public:
string concatHex36(int n) {

}
};
```

Java:

```
class Solution {
public String concatHex36(int n) {

}
}
```

Python3:

```
class Solution:
def concatHex36(self, n: int) -> str:
```