2081. Sum of k-Mirror Numbers

Description

A **k-mirror number** is a **positive** integer **without leading zeros** that reads the same both forward and backward in base-10 **as well as** in base-k.

- For example, `9` is a 2-mirror number. The representation of `9` in base-10 and base-2 are `9` and `1001` respectively, which read the same both forward and backward.
- On the contrary, `4` is not a 2-mirror number. The representation of `4` in base-2 is `100`, which does not read the same both forward and backward.

Given the base `k` and the number `n`, return *the* ***sum*** *of the* `n` ***smallest*** *k-mirror numbers*.

Example 1:

```
Input: k = 2, n = 5
Output: 25
Explanation:
The 5 smallest 2-mirror numbers and their representations in base-2 are listed as follows:
  base-10    base-2
    1          1
    3          11
    5          101
    7          111
    9          1001
Their sum = 1 + 3 + 5 + 7 + 9 = 25.
```

Example 2:

```
Input: k = 3, n = 7
Output: 499
Explanation:
The 7 smallest 3-mirror numbers are and their representations in base-3 are listed as follows:
  base-10    base-3
    1          1
    2          2
    4          11
    8          22
    121        11111
    151        12121
    212        21212
Their sum = 1 + 2 + 4 + 8 + 121 + 151 + 212 = 499.
```

Example 3:

```
Input: k = 7, n = 17
Output: 20379000
Explanation: The 17 smallest 7-mirror numbers are:
1, 2, 3, 4, 5, 6, 8, 121, 171, 242, 292, 16561, 65656, 2137312, 4602064, 6597956, 6958596
```

Constraints:

- `2 <= k <= 9`
- `1 <= n <= 30`