1999. Smallest Greater Multiple Made of Two Digits Premium

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Given three integers, `k`, `digit1`, and `digit2`, you want to find the **smallest** integer that is:

- **Larger** than `k`,
- A **multiple** of `k`, and
- Comprised of **only** the digits `digit1` and/or `digit2`.

Return *the **smallest** such integer. If no such integer exists or the integer exceeds the limit of a signed 32-bit integer ($2^{31} - 1$), return* `-1`.

Example 1:

```
Input: k = 2, digit1 = 0, digit2 = 2
Output: 20
Explanation:
20 is the first integer larger than 2, a multiple of 2, and comprised of only the digits 0 and/or 2.
```

Example 2:

```
Input: k = 3, digit1 = 4, digit2 = 2
Output: 24
Explanation:
24 is the first integer larger than 3, a multiple of 3, and comprised of only the digits 4 and/or 2.
```

Example 3:

```
Input: k = 2, digit1 = 0, digit2 = 0
Output: -1
Explanation:
No integer meets the requirements so return -1.
```

Constraints:

- `1 <= k <= 1000`
- `0 <= digit1 <= 9`
- `0 <= digit2 <= 9`

Seen this question in a real interview before?   1/5

Yes   No

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Hint 1

Could you generate all the different numbers comprised of only digit1 and digit2 with the constraints?

Hint 2

Going from least to greatest, check if the number you generated is greater than k and a multiple of k.

Discussion (1)