[CS 11 25.1] Lab 5d – Digits and Divisibility

Cheatsheet is available here: https://oj.dcs.upd.edu.ph/cs11cheatsheet/

Problem Statement

DeeDee Megadoodoo thinks that an integer is **delightful** if:

- each of the ten digits appears at most d times in its decimal representation, and
- it is divisible by δ.

How many delightful positive integers are there?

Since the answer can be large, give the answer modulo 10^8.

Task Details

Your task is to implement a function called `delightful_number_count`. The function takes two `int` arguments: d and δ.

The function must return an `int` denoting the answer, reduced modulo 10^8.

Restrictions

(See 5a for more restrictions)

For this problem:

- The source code limit is 2000.

Example Calls

Example 1 Function Call

```
delightful_number_count(1, 7)
```

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Example 1 Return Value

```
1266368
```

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Constraints

- The function `delightful_number_count` will be called at most 2 times.
- $1 \leq d \leq 3$
- $2 \leq \delta \leq 12$

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 130 ❤️ points if you solve all test cases where:
  - $d = 1$
- You get 170 🔴 points if you solve all test cases where:
  - $d \leq 2$
- You get 50 💔 points if you solve all test cases.

Submit solution [CS 11 25.1] Lab Exercise 5

Points: 350 (partial)
Time limit: 10.0s
Memory limit: 1G

Problem type

Allowed languages
py3

Clarifications

Report an issue

No clarifications have been made at this time.