Daily Coding Problem #70

Problem

This problem was asked by Microsoft.

A number is considered perfect if its digits sum up to exactly 10.

Given a positive integer n, return the n-th perfect number.

For example, given 1, you should return 19. Given 2, you should return 28.

Solution

There's no faster way than simply iterating over all the numbers and keeping track of the current perfect number until we hit n. So that's what we'll do:

```
def sum_of_digits(n):
    current_sum = 0
    while n > 0:
        current_sum += n % 10
        n = n // 10
    return current_sum

def perfect(n):
    i, current = 0, 0
    while current < n:
        i += 1

        if sum_of_digits(i) == 10:
            current += 1
```

```
    return i
```

This will run in O(N) time.