2010 HG2

求最小的正整數 n 使得 $\underbrace{20092009\cdots2009}_{n\text{個}2009}$ 能被 11 整除。

Find the smallest positive integer n so that $\underbrace{20092009\cdots2009}_{n\text{ copies of }2009}$ is divisible by 11.

2016 FI1.4

設 $d=\overline{xyz}$ 為一不能被10整除的三位數。若 $\overline{xyz}$ 與 $\overline{zyx}$ 之和可被11整除，求此整數的最大可能值 d。

Let $d=\overline{xyz}$ be a three-digit integer that is **not** divisible by 10.

If the sum of integers $\overline{xyz}$ and $\overline{zyx}$ is divisible by 11, determine the greatest possible value of such an integer d.

2018 FG3.2

設 β為三位正整數且能被 11 整除，且其商相等於其值的各數字之和的三倍，求 β 的值。

If β is a 3-digit positive integer that is divisible by 11 and whose quotient when divided by 11 is 3 times the sum of its digits, determine the value of β.

2022 P1Q12

由數字 0，1，2，3，4，5，6 組成一個沒有重複數字的 7 位數。若這個數可以被 55 整除，求這個數的最大值。

A 7-digit number is formed by putting the numerals 0, 1, 2, 3, 4, 5, 6 together without repetition. If this number is divisible by 55, find its largest possible value.

2023 FI2.1

找出一個能被 11 整除，且各數位之和是 38 的最小正整數 α。

Find the smallest positive integer α that is divisible by 11 and the sum of its digits is equal to 38.

Answers

2010 HG2 11	2016 FI1.4 979	2018 FG3.2 594	2022 P1Q12 6431205	2023 FI2.1 119999