

2010 HG2

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

Find the smallest positive integer n so that $\underbrace{20092009\cdots 2009}_{n \text{ copies of } 2009}$ 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.

Answers

2010 HG2 11	2016 FI1.4 979	2018 FG3.2 594	2022 P1Q12 6431205	
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