



Problem of the Week

Problem E

Linked Digits

The number 34 685 contains 5 digits and we say its digit length is 5. The left-most digit of 34 685 is 3. Each pair of consecutive digits, 34, 46, 68 and 85, forms a number which is divisible by either 17 or 23.

The left-most digit of an integer with digit length 100 is 3. This integer also has the property that any pair of consecutive digits forms a number which is divisible by either 17 or 23. How many such integers are there?

