

UC Merced Applied Math Problem of the Month

October 14 – November 10, 2021

Observe that the 9-digit number 801654723 has interesting properties:

1. Each integer from 0 to 8 appears exactly once in the number.
2. The first k -digits of the number are divisible by k ($k = 1, 2, \dots, 9$).



Divisible by 1

Divisible by 2

Divisible by 3

⋮

Divisible by 9

Can you find all 9-digit numbers
with these properties?

** How about 8-digit numbers or 10-digit numbers with similar properties?

To submit your solutions for a chance to win an Amazon gift card,
and to find out detailed contest rules,

- scan the QR code to the right, or
- go to <https://appliedmath.ucmerced.edu/news-events/problem-month>

