MATH PROBLEM OF THE WEEK

Spring 2026

Problem 1

We call a year **Harmonious** if the sum of its digits is a divisor of the year itself. For example, the year 2025 was Harmonious because $2+0+2+5=9$, and 2025 is divisible by 9. Whereas, 2026, is clearly not Harmonious as $2+0+2+6=10$ does not divide 2026. What are the next three Harmonious years after 2026? Justify your answer.

We welcome solutions from everyone. The undergraduate participant from the NMSU main campus with the most correct solutions at the end of the semester will receive an award of $500.

Solutions must be mathematically rigorous and originally obtained by the participants. Participants will be notified if their solutions are correct within a week.

Deadline: Monday, March 2, 10 am
Next problem will be posted on March 2