UC Merced Applied Math Problem of the Month

April 2023

$$5327 \times 4839 = 2577?353$$

$$31415 \times 92653 = 2910??3995$$

You multiply two integers (possibly very long) but realize that one digit is missing when you copy the answer. Without multiplying the two numbers again, can you easily determine what the missing digit should be? What if two consecutive digits are missing?

Hint: You can do simple arithmetic with the digits from the integers (e.g. calculating the sum of the digits and its remainder when divided by a certain number).

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