



Problem of the Week #10

1/16/2022 to 1/29/2023

Let N be the number formed by concatenating the decimal expansions of the numbers 32^{2023} and 3125^{2023} . How many digits does N have? As an example, the concatenation of numbers the 123 and 789 is the number 123789.

Solutions for this problem can be submitted to Dr. Brian Miceli at bmiceli@trinity.edu. People who submit solutions will be acknowledged on the next problem. If you like these problems, you may be interested in the Putnam Exam, and more information on the Putnam Exam may be found [HERE](#).

Solutions to the previous problem were submitted by Hari Kishan (India), T.J. Gaffney (Las Vegas, NV), Amelia Gibbs (TU), Rob Hill (Gambrills, MD), Tengiz Kutchava (Georgia, the country), François Seguin (Amiens, France), and Zurab Zakaradze (Georgia, the country).