Lewis & Clark College

Department of Mathematical Sciences

Problem of the Week #3 (Spring 2018)

In 2002, Crandall, Mayer, and Papadopoulos proved that the 24th Fermat number

$$F_{24} = 2^{2^{24}} + 1$$

is not a prime number. Find the four rightmost digits of F_{24}. Please justify your answer.

- Solvers should include their name, address, and status at the College. Solutions can be mailed to MSC 110 via campus mail or placed in Yung-Pin Chen's mailbox in the Math Department Office. Solutions to the above *Problem of the Week* should be received by 5:00 p.m. Monday, February 12, 2018.
- Arthur Drobot (fr.) solved *Problem of the Week* #2 with an elegant counting argument. Congratulations to him.