Problem of the Week #8
12/7/2020 to 12/20/2020

Find the sum of the series
\[ 1 + \frac{1}{2} + \frac{1}{3} + \frac{1}{4} + \frac{1}{6} + \frac{1}{8} + \frac{1}{9} + \frac{1}{12} + \cdots, \]
where the terms are the reciprocals of the positive integers whose only prime divisors are 2’s and 3’s.

Solutions to the last problem were submitted by Ziad Aramouni (Lebanon), Phil Boyd (Manchester, England), Matthew A. Brom (Troy, NY), M.V. Channakeshava (India), T.J. Gaffney (Las Vegas, NV), Rob Hill (Gambrills, MD), Lincoln James (Austin, TX), Tengiz Kutchava (Georgia, the country), Yann Michel (Paris, France), Surajit Rajagopal (India), Luciano Santos (Portugal), François Seguin (Amiens, France), and Zurab Zakaradze (Georgia, the country).

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](#).