Problem of the Week #16
4/19/2021 to 5/2/2021

Suppose some of the faces of a large wooden cube are painted red and the rest are painted blue. The cube is then cut into unit cubes such that the number of unit cubes with some red paint number exactly 200 more than the number of unit cubes with some blue paint. How many cubes have no paint at all?

Solutions to the last problem were submitted by Phil Boyd (Manchester, England), M.V. Channakeshava (India), Rob Hill (Gambrills, MD), Hari Kishan (India), Tengiz Kutchava (Georgia, the country), Tin Lam (St. Louis, MO), Yann Michel (Paris, France), François Seguin (Amiens, France), Bruno Alfonso Cuevas Villa (México), 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.