PoTW 24: Week of 12-31-2021

Problem of the Week at shsmathteam.com

Submission form: link to submit

For hints: andliu22@students.d125.org

Alternatively, you can message Andrew Liu on Facebook Messenger. Please don't be afraid to reach out for help, asking for hints is heavily encouraged if you feel stuck.

Problem of the Week #24: Iranian brain teaser

Geometry

In the figure below, a, b, and c are the side lengths of the three shaded equilateral triangles. Prove that $3(x + y + z) > 2(a + b + c)$.