Let $S$ be a square pyramid whose base consists of the four vertices $(0, 0, 0), (3, 0, 0), (3, 3, 0),$ and $(0, 3, 0),$ and whose apex is the point $(1, 1, 3).$ Let $T$ be a square pyramid whose base is the same as the base of $S,$ and whose apex is the point $(2, 2, 3).$ Find the volume of the intersection of the interiors of $S$ and $T.$

- 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 19, 2018.

- Ben Glick and Christopher Karagiannis solved Problem of the Week #3 using modular arithmetic and some computer work. Congratulations to them.