

Cal Poly Department of Mathematics

Puzzle of the Week

May 13-19, 2011

What is the largest integer such that each of its interior digits (non-leading digit and non-unit digit) is less than the average of its neighbors?

Solutions should be submitted to Morgan Sherman:

Dept. of Mathematics, Cal Poly

Email: sherman1 -AT- calpoly.edu

Office: bldg 25 room 310

before next Friday. Those with correct and complete solutions will have their names listed on the puzzle's web site (see below) as well as in next week's email announcement. Anybody is welcome to make a submission.

<http://www.calpoly.edu/~sherman1/puzzleoftheweek>

Solution: The largest integer is 96433469. Proof left to the reader!