

Do Perfect Cuboids Exist?

Fan, Matthew

This project investigates properties of the perfect cuboid system, and whether such a figure exists. Data was synthesized from a wide sample of properties, from self-bounding pair values (numbers that exist as the highest number in at least one Pythagorean Triple) to the total occurrences of a side in Pythagorean Triples. Other properties tested include proportions, angles, and both triple and quadruple distributions. This project also resulted in the discovery of a novel algebraic equation that defines all Pythagorean Triple Ratios using a single variable. To date, the problem is still unsolved, but research continues.

Awards Won:

