Fermat's Last Theorem with Solid Squares

Two squares sometimes equal a third square, as in Pythagorus' $a^2 + b^2 = c^2$, but two cubes never equal a third cube, even though cubes are nothing but squares (and this is one of the oldest riddles in the history of mathematics).

But in 1637, Pierre de Fermat discovered why two numbers raised to cubes or any power higher than squares never equal a third number raised to the same power, according to his notes, and this became big math news when his notes were published posthumously.

However, Pierre had kept the geometry to himself, to bamboozle his rivals, and now almost four centuries later, his "Last Theorem" has become an unsolved riddle often referred to as the "world's most difficult math problem." Mathematicians can't figure it out, and some arrogantly claim Fermat couldn't have either but just made a lucky guess without proof, which is not a theorem at all.

"It is clear to us now," writes a notable math professor at a prestige university, "that Fermat could not possibly have proved the statement (theorem) attributed to him. Entire fields of mathematics had to be created in order to do this, a development that took a lot of hard work by many generations of mathematicians." *

The "hard work" was a book-length dissertation on modular elliptical spirals, by Andrew Wiles, which indirectly confirmed Fermat and made headlines in 1993 as "Proof" of the Theorem; but no matter how arcane the spirals are, they are nothing like whatever Fermat had in mind.

Perhaps it's time to share Fermat's discovery and put an end to the dissimulations of Ivory-Tower mathematicians.

(I) Pythagorus' $a^2 + b^2 = c^2$ applies exclusively and exhaustively to squares of equal thickness: any thickness from paper-thin to infinite depth or elevation.

(II) However, cubes a^3, b^3 & c^3 are obviously squares of unequal thicknesses, and higher powers are stacks of cubes, which are still taller squares of still greater different thicknesses.

(III) Consequently, a & b raised to any power greater than squares never equal c because they're all different thicknesses.

This is proof by the logic of exclusion, in the form of a syllogism, popular since Aristotle's day; but of course, modern mathematicians expect proof to be in the form of algebra.

---

* Love & Math, Edward Frenkel (Basic Books, 2013) p.58