A Simple Pythagorean Interpretation of $\mathbf{E}^2 = \mathbf{p}^2\mathbf{c}^2 + (\mathbf{mc}^2)^2$[1] J.A.
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of Physics, Pacific Union College, Angwin, CA 94508 — We are considering the
relationship between the relativistic energy, the momentum, and the rest energy,
$E^2 = p^2c^2 + (mc^2)^2$, and using geometrical means to analyze each individual portion
in a spatial setting. The aforementioned equation suggests that pc and mc^2 could be
thought of as the two axis of a plane. According to de Broglie's hypothesis $\lambda = h/p$
therefore suggesting that the pc-axis is connected to the wave properties of a moving
object, and subsequently, the mc^2-axis is connected to the particle properties such
as its moment of inertia. Consequently, these two axes could represent the particle
(matter) and wave properties of the moving object. An overview of possible models
and meaningful interpretations, which agree with Dirac's prediction of the electron's
magnetic moment, will be presented.

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