

ON THE POSITIVE PELLIAN EQUATION $y^2=6x^2+10$

Dr. Shreemathi Adiga

Associate Professor, Department of Mathematics, Government First Grade College, Koteshwara, Kundapura, Udupi, Karnataka, India

ABSTRACT

The binary quadratic equation represented by the positive Pellian $y^2 = 6x^2 + 10$ is analyzed for its distinct integer solutions. A few interesting relations among the solutions are given. Further, employing the solutions of the above hyperbola, we have obtained solutions of other choices of hyperbola, parabola and special pythagorean triangle.

KEYWORDS: Binary Quadratic, Hyperbola, Parabola, Pell Equation, Integral Solutions

2010 Mathematics Subject Classification: 11D09

Article History

Received: 29 Dec 2021 | Revised: 03 Jan 2022 | Accepted: 06 Jan 2022