SPECIAL DIO-QUADRUPLE INVOLVING JACOBSTHAL AND JACOBSTHAL LUCAS NUMBERS WITH PROPERTY $D(k^2 + 1)$

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Abstract

We search for three distinct integers a, b, c such that product of any two from the set added with k-times their sum and increased by $k^2 + 1$ is a perfect square. Also, we show that the triple can be extended to the quadruple with property $D(k^2 + 1)$.

Notations

J_n : Jacobsthal number of rank n

j_n : Jacobsthal Lucas number of rank n.

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