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*On a Generalized Pell Equation and a Characterization Of the Fibonacci and Lucas Numbers,*

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**Abstract**

A general method to solve the Pell equation  $x^2 - dy^2 = a^2$  is given under certain conditions on  $a$  and  $d$ . As a special case, our method gives a different technique than the continued fractions technique used by C. T. Long and J. H. Jordan to characterize the Fibonacci and Lucas numbers as solutions to  $x^2 - 5y^2 = \pm 4$ .