International J. of Math. Sci. & Engg. Appls. (IJMSEA) ISSN 0973-9424, Vol. 6 No. II (March, 2012), pp. 269-274

## ON TRIPLES OF PENTAGONAL NUMBERS

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## Abstract

In this paper, we present the observation on pentagonal numbers in arithmetic progression. In that, the parameters represent the indices of pentagonal numbers in arithmetic progression. In addition, we analyzed the existence of infinitely many triples of pentagonal numbers in arithmetic progression with identical least value by using the theory of Pell's equation.

 $\label{eq:condition} \mbox{Key Words}: \mbox{$Arithmetic progression, Pell's equation, Pentagonal numbers and triplet.} \\ 2000 \mbox{ AMS Subject Classification}: .$ 

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