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Indika P Wickramasinghe* (indika.wickramasinghe@enmu.edu), 1500 S Ave K, Station 18, Eastern New Mexico University, Portales, NM 88130. *Unit roots probabilities of the parameter of first order moving average model.*

Estimating the parameter, θ of moving average model of order one has practical importance. In this study, we estimate unit roots probabilities of the first order moving average model using the techniques of Maximum Likelihood Estimator (MLE) and Method of Moments (MOME). We consider random variables from the Gaussian distribution and the unit roots probabilities are compared under the two approaches of MLE and MOME. Results of the study conducted by Cryer and Ledolter (1981) are also compared with the results of this work. This study consider the instances of $\theta=0.2, 0.4, 0.6,$ and 0.8 and the sample sizes $N=5, 10, 15, 20, 25,$ and 30 . (Received July 31, 2014)