

84. Tables for the application of Neyman and Pearson's L tests for judging the significance of observed divergence in mean values and variabilities of K samples.

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A number of K samples may differ in (i) population mean values, or (ii) population variabilities, or (iii) a combination of both. Neyman and Pearson have recently developed certain tests which may be called L_1 , L_2 , and L_0 tests respectively which would distinguish between the above three cases. The calculation of observed L values is simple and straightforward, but the estimation of expected values of L (on a 5% or 1% level of significance) is extremely difficult as it involves for each pair of values of n and K (the size and number of samples) work with ten different Gamma functions with fractional parameters. The present tables will cover the range for $n=2, 3, 4, 5, 10, 15, 20, 30, 40, 50$, and ∞ , and $K=2, 4, 5, 10, 20, 25, 50$, and ∞ .