Pairman and Pearson gave a numerical example in which both the lack of high contact and the grouping introduced large errors. They started with $y_x = 100{,}000\sqrt{x}$ and from this formed ten values of A_x. From these they computed the ν'_m's and corrected them to get the μ'_m's. The exact values of the latter were already known to them through integration of the original equation. The following table compares four values of moments from these data.

m	ν'_m	μ'_m by Sheppard's Formula	μ'_m with Pairman-Pearson Full Corrections	Method Developed Here	True Values
1	5.9880	5.9880	5.9994	5.9996	6.0000
2	42.6900	42.6067	42.8570	42.8576	42.8571
3	331.0854	329.5884	333.3349	333.3387	333.3333
4	2698.7735	2677.4576	2727.2757	2727.3555	2727.2727

Despite the use of the $\Delta^i_{A_x}$'s instead of Δ^i_x's, the results of this method are almost as good as by the older one. The method has the additional advantage of unifying the theories of the correction of moments from the two types of distribution.

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FREQUENCY DISTRIBUTION OF PRODUCT AND QUOTIENT

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The main purpose of this note is to establish Theorems 1 and 2. For the sake of completeness, the more familiar Theorems 3 and 4 are appended. All four of these theorems have numerous applications in the theory of frequency distributions. While the proofs of Theorems 1 and 2 in the elementary forms here given (and used in my class-room notes since 1934) can hardly be new, they seem not to be readily accessible in the current text-books.

Theorem 1. *Suppose a variable x is distributed in accordance with a probability law* $\int_0^\infty f(x)dx = 1$; *and a variable y in accordance with a probability law* $\int_0^\infty F(y)dy$