Geometric Mean.

If $x_1, x_2, x_3, \ldots, x_n$ are n values of a variate x, none of them being zero, then geometric mean

(G.M.) is given by $\text{G.M.} = (x_1.x_2.x_3 \ldots x_n)^{1/n} \Rightarrow \log(\text{G.M.}) = \dfrac{1}{n}(\log x_1 + \log x_2 + \ldots + \log x_n)$.

In case of frequency distribution, G.M. of n values $x_1, x_2, \ldots x_n$ of a variate x occurring with

frequency $f_1, f_2, \ldots, f_n$ is given by $\text{G.M.} = (x_1^{f_1} . x_2^{f_2} \ldots x_n^{f_n})^{1/N}$, where $N = f_1 + f_2 + \ldots + f_n$.