

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] - \left(\frac{N + x + 1}{2}\right) * \left(\text{Ln}\left[1 + \frac{x}{N}\right]\right) - \left(\frac{N - x + 1}{2}\right) * \left(\text{Ln}\left[1 - \frac{x}{N}\right]\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] - \left(\frac{N + x + 1}{2}\right) * \left(\frac{x}{N} - \frac{1}{2} * \frac{x^2}{N^2}\right) - \left(\frac{N - x + 1}{2}\right) * \left(-\frac{x}{N} - \frac{1}{2} * \frac{x^2}{N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] - \left(\frac{N + x + 1}{2}\right) * \left(\frac{2 * N * x}{2 * N^2} - \frac{x^2}{2 * N^2}\right) - \left(\frac{N - x + 1}{2}\right) * \left(-\frac{2 * N * x}{2 * N^2} - \frac{x^2}{2 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] - \left(\frac{N + x + 1}{2}\right) * \left(\frac{2 * N * x - x^2}{2 * N^2}\right) + \left(\frac{N - x + 1}{2}\right) * \left(\frac{2 * N * x + x^2}{2 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] + \left(\frac{N - x + 1}{2}\right) * \left(\frac{2 * N * x + x^2}{2 * N^2}\right) - \left(\frac{N + x + 1}{2}\right) * \left(\frac{2 * N * x - x^2}{2 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] + \left(\frac{2 * N^2 * x + N * x^2 - 2 * x^2 * N - x^3 + 2 * N * x + x^2}{4 * N^2}\right) - \left(\frac{2 * N^2 * x - N * x^2 + 2 * N * x^2 - x^3 + 2 * N * x - x^2}{4 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] + \left(\frac{2 * N^2 * x + N * x^2 - 2 * x^2 * N - x^3 + 2 * N * x + x^2 - 2 * N^2 * x + N * x^2 - 2 * N * x^2 + x^3 - 2 * N * x + x^2}{4 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] + \left(\frac{x^2 - x^2 * N}{2 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] + \left(\frac{x^2 * (1 - N)}{2 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] - \left(\frac{x^2 * (N - 1)}{2 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] - \left(\frac{x^2 * N}{2 * N^2}\right)$$

$$\text{Ln}\left[\left(\frac{2}{\pi * N}\right)^{\frac{1}{2}}\right] - \left(\frac{x^2}{2 * N}\right)$$