

FORMULA 4.269.6

$$\int_0^1 \frac{\cos t - x - x^{n-1} \cos nt + x^n \cos [(n-1)t]}{1 - 2x \cos t + x^2} \cdot \frac{dx}{\sqrt{\ln 1/x}} = \sqrt{\pi} \sum_{k=1}^{n-1} \frac{\cos kt}{\sqrt{k}} \quad |t| < \pi$$