

FORMULA 4.231.16

$$\int_0^1 \ln x \frac{1 - x^{2n+2}}{(1 - x^2)^2} dx = -(n + 1) \frac{\pi^2}{8} + \sum_{k=1}^n \frac{n - k + 1}{(2k - 1)^2}$$