

FORMULA 4.271.14

$$\int_0^\infty \frac{x^{\nu-1} \ln^n x dx}{x^2 + 2ax \cos t + a^2} dx = -\frac{\pi}{\sin t} \frac{d^n}{d\nu^n} \left[a^{\nu-2} \frac{\sin(\nu-1)t}{\sin \pi\nu} \right]$$