

FORMULA 4.441.2

$$\int_0^{\infty} e^{-qx} \cos px \ln x \, dx = -\frac{1}{p^2 + q^2} \left[p \tan^{-1} \left(\frac{p}{q} \right) + q\gamma + \frac{q}{2} \ln(p^2 + q^2) \right]$$