

**FORMULA 4.297.4**

$$\int_0^1 \ln \left( \frac{1+x}{1-x} \right) \frac{dx}{1+x^2} = G$$

The change of variables  $t = \frac{1+x}{1-x}$  gives

$$\int_0^1 \ln \left( \frac{1+x}{1-x} \right) \frac{dx}{1+x^2} = \int_1^\infty \frac{\ln t \, dt}{1+t^2}.$$

This integral appears in entry 4.231.12.