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! For an efficient use of these tables, first read [HowTo.pdf](#).

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T2.69B. Integrands involving logarithm functions and powers of logarithm functions and rational functions on the interval $(0, 1/2)$ and $(-1, 1)$.

$$1. \int_0^{1/2} \frac{\ln(1-x)}{x} dx = \frac{1}{2}(\ln 2)^2 - \frac{\pi^2}{12}.$$

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$$2. \int_{-1}^1 \ln(1-x^2) \frac{dx}{(a+bx)\sqrt{1-x^2}} = \frac{2\pi}{\sqrt{a^2-b^2}} \ln \frac{\sqrt{a^2-b^2}}{a+\sqrt{a^2-b^2}}, \quad a > 0, b > 0, a \neq b.$$

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