FORMULA 3.248.6

$$\int_{-\infty}^{\infty} \frac{dx}{(1+x^2)\sqrt{b+ax^2}} = \begin{cases} \frac{2}{\sqrt{b-a}}\tan^{-1}\left(\sqrt{b/a}-1\right) & \text{if } a < b \\ \frac{2}{\sqrt{a}} & \text{if } a = b \\ \frac{1}{\sqrt{a-b}}\ln\left(\frac{\sqrt{a}+\sqrt{a-b}}{\sqrt{a}-\sqrt{a-b}}\right) & \text{if } a > b \end{cases}$$

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