计算(写出计算过程)

$$1. \int e^{\sqrt{1+x}} dx$$

$$2. \int \frac{dx}{\sin x + \tan x}$$

$$3. \int x \ln(1+x^2) dx$$

4. 
$$\int \arctan(\sqrt{x}) dx$$

$$5. \int \frac{dx}{(x+1)(x^2+1)} \circ$$