

$$f := t \rightarrow [t, \sqrt{1-t^2}]$$

$$t \rightarrow [t, \sqrt{1-t^2}] \quad (1)$$

$$\text{diff}(f(t), t)$$

$$\left[1, -\frac{t}{\sqrt{1-t^2}} \right] \quad (2)$$

$$\text{grad} := \sqrt{(\%_1)^2 + (\%_2)^2}$$

$$\sqrt{1 + \frac{t^2}{1-t^2}} \quad (3)$$

$$\int \text{grad} dt$$

$$\sqrt{-\frac{1}{-1+t^2}} \sqrt{-1+t^2} \ln(t + \sqrt{-1+t^2}) \quad (4)$$

$$2 \cdot \int_0^1 \text{grad} dt$$

$$\pi \quad (5)$$