

$$\begin{aligned}(5) \quad & \left(\sqrt{\tan x} \right)' = (\sqrt{t})'(\tan x)' \\&= \frac{1}{2\sqrt{t}} \cdot \frac{1}{\cos^2 x} \\&= \frac{1}{2 \cos^2 x \sqrt{\tan x}}\end{aligned}$$