

$$\begin{aligned}(2) \quad \left(\sqrt{\frac{x-1}{x+1}} \right)' &= (\sqrt{t})' \left(\frac{x-1}{x+1} \right)' \\ &= \frac{1}{2\sqrt{t}} \times \frac{(x-1)'(x+1) - (x-1)(x+1)'}{(x+1)^2} \\ &= \frac{1}{\sqrt{(x-1)(x+1)^3}}\end{aligned}$$