

Fill in blanks.

13.  $\frac{1}{\sqrt{e}}$

Short answers

1. b).  $y = \sqrt[3]{\log_2 \tan \frac{x+4}{3}}$

$$y' = \frac{1}{3} \left( \log_2 \tan \frac{x+3}{4} \right)^{-\frac{2}{3}} \cdot \frac{\sec^2 \left( \frac{x+3}{4} \right) \cdot \frac{1}{4}}{\ln 2 \cdot \tan \frac{x+3}{4}}$$

$$= \frac{1}{3} \left( \log_2 \tan \frac{x+3}{4} \right)^{-\frac{2}{3}} \cdot \frac{1}{4 \cos \left( \frac{x+3}{4} \right) \cdot \sin \left( \frac{x+3}{4} \right) \cdot \ln 2}$$