

Q1. Evaluate the limits

i. $\lim_{x \rightarrow 0^+} (\tan x \ln x)$

ii. $\lim_{x \rightarrow -\infty} \left(1 - \frac{3}{x}\right)^x$

Q2. If f is defined on \mathfrak{R} and $f' = \frac{9 - 4x^2}{\sqrt[3]{x+1}}$. Find the x -coordinate of the relative extremes.