

L'Hospital's Rule

Find the limit.

- $\lim_{x \rightarrow 0^+} \left(\frac{1}{x} - \frac{1}{e^x - 1} \right)$

- $\lim_{x \rightarrow 1^+} [\ln(x^7 - 1) - \ln(x^5 - 1)]$

- $\lim_{x \rightarrow 0^+} x^{\sqrt{x}}$

- $\lim_{x \rightarrow 0} (1 - 2x)^{\frac{1}{x}}$

- $\lim_{x \rightarrow \infty} x^{\frac{1}{x}}$

- $\lim_{x \rightarrow \infty} (e^x + x)^{\frac{1}{x}}$