

Use L'Hôpital's Rule to find the following limits.

1. $\lim_{x \rightarrow 3} \frac{x^2 + x - 12}{x - 3}$

2. $\lim_{x \rightarrow 1} \frac{\ln x}{\sin \pi x}$

3. $\lim_{x \rightarrow 0} \frac{e^{3x} - 1}{x}$

4. $\lim_{x \rightarrow 0} \frac{1 - \cos x}{x^2}$