

Centum Preparation 100 Days plan class 12 Maths

Q.N o.	DAY - 51
315	Example 7.43 Using the l'Hôpital Rule prove that, $\lim_{x \rightarrow 0^+} (1+x)^{\frac{1}{x}} = e$.
316	Example 7.44 Evaluate : $\lim_{x \rightarrow \infty} (1+2x)^{\frac{1}{2 \log x}}$.
317	EXERCISE 7.5 Evaluate the following limits, if necessary use l'Hôpital Rule 4. $\lim_{x \rightarrow \frac{\pi}{2}^-} \frac{\sec x}{\tan x}$
318	Evaluate the following limits, if necessary use l'Hôpital Rule 6. $\lim_{x \rightarrow 0} \left(\frac{1}{\sin x} - \frac{1}{x} \right)$
319	Evaluate the following limits, if necessary use l'Hôpital Rule : 11. $\lim_{x \rightarrow 0^+} (\cos x)^{\frac{1}{x^2}}$
320	Example 7.48 Find the absolute maximum and absolute minimum values of the function $f(x) = 2x^3 + 3x^2 - 12x$ on $[-3, 2]$
321	Example 7.51 Find the intervals of monotonicity and hence find the local extrema for the function $f(x) = x^{\frac{2}{3}}$.