

PRINT your name _____

Quiz for March 24, 2009 – 8:00 section

Remove everything from your desk except this page and a pencil or pen.

Circle your answer. Show your work.

The quiz is worth 5 points.

Find $\lim_{x \rightarrow 0^+} \frac{x}{\ln x}$.

Answer: This problem is NOT a L'Hôpital's rule problem. The top goes to zero. The bottom goes to $-\infty$; so the bottom ALSO wants the answer to be zero. The top and the bottom are working together. We conclude that

$$\lim_{x \rightarrow 0^+} \frac{x}{\ln x} = \boxed{0}.$$