PRINT Your Name:_____

Quiz – September 21, 2006

Find $\displaystyle\int \frac{dx}{x(\ln x)^2}$.

Answer: You can probably just write down the answer. If necessary, let $u = \ln x$. So, $du = \frac{1}{x}dx$. The original integral is equal to

$$\int u^{-2}du = \frac{-1}{u} + C = \boxed{\frac{-1}{\ln x} + C}.$$

Check: The derivative of the proposed answer is $\frac{1}{x(\ln x)^2}$. ✓