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**Quiz – September 21, 2006**

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

**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  $\frac{1}{x(\ln x)^2} \cdot \checkmark$