

Integral Indefinida - Cambio de variable

Bit Planet

Solución

$$\int \frac{1}{x \ln(x)} dx = \int \frac{1}{x} \cdot \frac{1}{\ln(x)} dx$$

- $u = \ln(x)$

$$dx = x da$$

- $da = \frac{1}{x} dx$

- * $\frac{d}{dx} \ln(x) = \frac{1}{x}$

- * $\int \frac{1}{x} = \ln|x|$

$$= \int \frac{1}{x} \cdot \frac{1}{u} [x da]$$

$$= \int \frac{1}{\cancel{x}} \cdot \frac{1}{u} [\cancel{x} da]$$

$$= \int \frac{1}{u} da$$

- * $u = \ln(x)$

$$= \ln|u| + C$$

$$= \underline{\ln(|\ln(x)|) + C}$$