

$$\int \frac{\ln x}{x} dx =$$

INT-S1-050

= SOSTITUZIONE

$$\ln x = z$$

$$x = e^z$$

$$x' = \frac{dx}{dz} = e^z \rightarrow dx = e^z dz$$

$$= \int \frac{z}{\cancel{e^z}} \cancel{e^z} dz = \int z dz =$$

$$= \frac{1}{2} z^2 + k = \boxed{\frac{1}{2} \ln^2 x + k}$$