

Lecture Notes: (5.5) Integrating an Exponential Function to Another Base
Marshall Math

Let u be a differentiable function of x .

$$\int a^x dx = \left(\frac{1}{\ln a} \right) a^x + C$$

Example:

Evaluate $\int 2^x dx$

Solution:

$$\int 2^x = \left(\frac{1}{\ln 2} \right) 2^x + C$$

$$= \frac{1}{\ln 2} 2^x + C$$

HW p.354 #69-76:all