

## BASIC ANTIDERIVATIVE FORMULAS YOU REALLY NEED TO KNOW !!

$$\int e^x dx = e^x + C$$

$$\int a^x dx = \frac{a^x}{\ln a} + C$$

$$\int \frac{1}{x} dx = \ln|x| + C$$

$$\int \cos x dx = \sin x + C$$

$$\int \sec^2 x dx = \tan x + C$$

$$\int \sin x dx = -\cos x + C$$

$$\int \csc^2 x dx = -\cot x + C$$

$$\int \sec x \tan x dx = \sec x + C$$

$$\int \frac{1}{1+x^2} dx = \arctan x + C$$

$$\int \frac{1}{\sqrt{1-x^2}} dx = \arcsin x + C$$

$$\int \csc x \cot x dx = -\csc x + C$$

$$\int \sec x dx = \ln|\sec x + \tan x| + C$$

$$\int \csc x dx = -\ln|\csc x + \cot x| + C$$

$$\int x^n dx = \frac{x^{n+1}}{n+1} + C, \text{ when } n \neq -1$$

Here are some additional ones that we used to require students to know ...

$$\int \sinh x dx = \cosh x + C$$

$$\int \cosh x dx = \sinh x + C$$