

Math 112: Calculus B

Integral Formulas You Should Know

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Split second

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$$\int dx = x + C$$

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

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

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

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

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

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

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

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

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

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I'll give you a minute

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$$\int a^x dx = \frac{a^x}{\ln(a)} + C, \text{ provided } a \neq 1$$

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

$$\int \frac{1}{1+x^2} dx = \tan^{-1}(x) + C$$