



Indefinite integral of $1/x$



Indefinite integrals of
 $\sin(x)$, $\cos(x)$, and e^x



Practice: Indefinite
integrals: e^x & $1/x$



Practice: Indefinite
integrals: \sin & \cos



Practice: Integrating trig
functions



Common integrals review

Next tutorial

Definite integrals of comm...

Common integrals review

Review the integration rules for all the common function types.



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Polynomials

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

Radicals

$$\int \sqrt[n]{x^n} dx = \int x^{\frac{n}{m}} dx$$

$$= \frac{x^{\frac{n}{m} + 1}}{\frac{n}{m} + 1} + C$$

Want to learn more about integrating polynomials and radicals? Check out [this video](#).

Want to practice integrating polynomials and radicals? Check out these exercises:

[Indefinite integrals intro](#)

[Indefinite integrals](#)

[Indefinite integrals: advanced](#)

Trigonometric functions

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

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

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

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

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

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

Want to learn more about integrating trigonometric functions? Check out [this video](#).

Want to practice integrating trigonometric functions? Check out these exercises:

[Indefinite integrals: sin & cos](#)
[Integrating trig functions](#)

Exponential functions

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

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

Integrals that are logarithmic functions

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

Want to learn more about integrating exponential functions and $\frac{1}{x}$? Check out [this video](#).

Want to practice integrating exponential functions and $\frac{1}{x}$? Check out [this exercise](#).

Integrals that are inverse trigonometric functions

$$\int \frac{1}{\sqrt{a^2 - x^2}} dx = \arcsin \left(\frac{x}{a} \right) + C$$

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

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Questions

Tips & Thanks

Question



Ask a question...