

Calculus I

Basic trig integrals, part 1

Todor Milev

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Example

Find the indefinite integral.

$$\int (8x^3 - 3 \sec^2 x) dx$$

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Example

Find the indefinite integral.

$$\begin{aligned}\int (8x^3 - 3 \sec^2 x) dx &= 8 \int x^3 dx - 3 \int \sec^2 x dx \\ &= 8 \frac{x^4}{4} - 3 \tan x\end{aligned}$$

Example

Find the indefinite integral.

$$\begin{aligned}\int (8x^3 - 3 \sec^2 x) dx &= 8 \int x^3 dx - 3 \int \sec^2 x dx \\ &= 8 \frac{x^4}{4} - 3 \tan x + C\end{aligned}$$

Example

Find the indefinite integral.

$$\begin{aligned}\int (8x^3 - 3 \sec^2 x) dx &= 8 \int x^3 dx - 3 \int \sec^2 x dx \\ &= 8 \frac{x^4}{4} - 3 \tan x + C \\ &= 2x^4 - 3 \tan x + C\end{aligned}$$