

Indefinite Integrals

If u is any differentiable function,

If $u = g(x)$ is a differentiable function whose range is an interval I and f is continuous on I ,

$$\cos(2x) = \cos(x+x)$$

$$\cos(2x) = \cos^2 x - (1 - \cos^2 x)$$

$$\int \sec(2t) \tan(2t) dt$$

$$\int \frac{9r^2 dr}{\sqrt{1-r^3}}$$

$$\int \sin^5\left(\frac{x}{3}\right)\cos\left(\frac{x}{3}\right)dx$$

$$\int x^3\sqrt{x^2+1}dx$$

$$\text{Try It: } \int \frac{1}{\sqrt{5s+4}}ds$$