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Graph of cos 2x

What is the integration of cos^2x? this process is the opposite of finding a derivative. Integrations are anti-derived. Integrations are the way to add parts to find everything. Integration is the whole pizza and slices are the differentiable functions that can be integrated. If f(x) is any function and f'(x) is its derivatives. The integration of f'(x) compared to the dx is given as ∫ f'(x) dx = f(x) + C. There are two forms of integrals. Undefined supplements: It is an integral element of a function when there is no limit for integration. It contains a constant arbitrary. Definition Integral: Integrator of a function with integration limits. There are two values like limits for the integration range. One is the lower limit and the other is the upper limit. It does not contain any constant integration. Integration of cos^2x We cannot simply integrate cos^2(x) as it is, so we want to change it in another form, which we can easily do using trig identities. Integration of t^2(2x) We recall the double angle formula: cos(2x) = cos^2(x) – sin^2(x). We also know the identity trig sin^2(x) + cos^2(x) = 1, so combining these we get the equation cos(2x) = 2cos^2(x) -1. Now we can reorganize this to give: cos^2(x) = (1+cos(2x))/2. So we have an equation that gives t^2(x) in a more beautiful form that we can easily integrate using the reverse chain rule. This ultimately gives us a response of x/2 + sin(2x)/4 +c Integration of the sin^2x cos^2x of M. Bourne Double-angle formulas can be quite useful when we need to simplify complicated trigonometric expressions later. With these formulas, it is better to remember from where they come, rather than try to remember the real formulas. In this way, you will understand better and have less to swallow memory with. sin 2α = 2 sin Try Richiamo from the last section, the sine of theof two corners: sin (α + β) = sin α cos β + what sin β We will use this to obtain the sine of a double angle. double.we take the left side (LHS): sin (α + β) and replace β with α, we obtain: sin (α + α) = sin 2α Consider RHS: sin α cos β + what sin β Since we have replaced β in LHS with α, we must do the same on the right side. We do it and we get it: sin α cos α sin α = 2 sin α cos α Putting together our results for LHS and RHS, we obtain the important result: sin 2α = 2 sin α cos α This result is called the sine of a double angle. It is useful to simplify expressions later. Using a similar process, we can find the small thing of a double-angle formula: cos 2α = cos2 α − sin2 α Test This time we start with the sodium of the sum of two corners: cos(α + β) = t α cos β − sin α sin β, and once again replace β with α on both LHS and RHS, as follows: LHS = cos(α + α α = cos(2α) RHS = cos α α α sin α = cos2 α α α