

How to do U integration substitution in Maple

restart :

Let us assume you are presented with a problem that asks you to get the integral for $\int \sin^2 x \cdot \cos x \, dx$ and you have decided to do the U substitution method to solve this. First you decide to let $u = \sin x$ which conveniently leaves $\frac{du}{dx} = \cos x$. We can now approach this problem as $\int u^2 \, du$

StepOne := int(u^2, u);

$$\frac{1}{3} u^3 \quad (1.1)$$

StepTwo := subs(u = sin(x), StepOne);

$$\frac{1}{3} \sin(x)^3 \quad (1.2)$$

Don't forget to include your constant and write your answer in the format $\frac{\sin^3(x)}{3} + C$ when answering your problem.

I hope this is helpful. Let me know if you have any questions, suggestions or would like tutoring at joseph_pousada@optonline.net.