

Taker Name:

TAKER NAME

6

GTID:

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Section:

J04

Grader #1:

GRADER NAME

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PA#1B §Prerequisite: Integral Calculus and Precalculus

Use the basic derivative $\frac{d}{dt} \tan t = \sec^2 t$ to integrate. Show all steps [J] and use proper notation [N] for full credit.

all steps
clear

$$\int \tan^3 t \sec^2 t \, dt$$

u-sub

$$\begin{aligned} u &= \tan t \\ du &= \sec^2 t \, dt \end{aligned}$$

$$\int \tan^3 t \sec^2 t \, dt = \int u^3 \, du$$

$$= \frac{1}{4} u^4 + C$$

proper use
of equality

$$= \boxed{\frac{1}{4} \tan^4 t + C}$$

answer boxed
in terms of t

A

2

accuracy

J

2

justification

N

2

notation

G2:

A

J

N

G3:

A

J

N