

Started on	Wednesday, 29 May 2024, 8:00 PM
State	Finished
Completed on	Wednesday, 29 May 2024, 8:25 PM
Time taken	25 mins 19 secs
Marks	5.00/5.00
Grade	10.00 out of 10.00 (100%)

Question 1

Correct

Mark 1.00 out of 1.00

What is $\int_0^2 \frac{dx}{x^2+4}$ equal to?

- ☒ a. $\frac{\pi}{8}$ ✓
- ☐ b. None of these
- ☐ c. $\frac{\pi}{4}$
- ☐ d. $\frac{\pi}{2}$

Your answer is correct.

The correct answer is: $\frac{\pi}{8}$ **Question 2**

Correct

Mark 1.00 out of 1.00

Evaluate the following: $\int \frac{e^{x(x+1)}}{\cos^2(xe^x)} dx$

- ☐ a. $\cos(xe^x) + c$
- ☐ b. $\sec(xe^x)\tan(xe^x) + c$
- ☒ c. $\tan(xe^x) + c$ ✓
- ☐ d. None of these

Your answer is correct.

The correct answer is: $\tan(xe^x) + c$

Question 3

Correct

Mark 1.00 out of 1.00

What is $\int e^x (1 + \ln x + x \ln x) dx$ equal to?

- ☒ a. $xe^x \ln x + c$ ✓
- ☐ b. None of these
- ☐ c. $x + e^x \ln x + c$
- ☐ d. $x^2 e^x \ln x + c$

Your answer is correct.

The correct answer is: $xe^x \ln x + c$

Question 4

Correct

Mark 1.00 out of 1.00

The value of the integral $\int \frac{1}{1 - \sin x} dx$ is

- ☐ a. $\sec x - \tan x + c$
- ☐ b. $x + \cos x + c$
- ☒ c. $\sec x + \tan x + c$ ✓
- ☐ d. $1 + \sin x + c$

Your answer is correct.

The correct answer is: $\sec x + \tan x + c$

Question 5

Correct

Mark 1.00 out of 1.00

The value of the integral $\int \frac{\cos^3 x + \cos^5 x}{\sin^2 x + \sin^4 x} dx$ is

- ☒ a. $\sin x - 2(\sin x)^{-1} - 6 \tan^{-1}(\sin x) + c$ ✓
- ☐ b. $\sin x - 6 \tan^{-1}(\sin x) + c$
- ☐ c. $\sin x - 2(\sin x)^{-1} + 5 \tan^{-1}(\sin x) + c$
- ☐ d. $\sin x - 2(\sin x)^{-1} + c$

Your answer is correct.

The correct answer is: $\sin x - 2(\sin x)^{-1} - 6 \tan^{-1}(\sin x) + c$