



MAA

MATHEMATICAL ASSOCIATION OF AMERICA

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WeBWork / MTH-255 / gateway antiderivatives / v3

Proctored Gateway Quiz gateway antiderivatives,v3

Your score on this version (3) WAS recorded.

Your score on this test is 6/6.

Time taken on test: 2.5 min (60 min allowed).

The test (which is version 3) may no longer be submitted for a grade. You may still check your answers.

Print Test

Jump to Problem:

1

2

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4

5

6

% Score:

100

100

100

100

100

100

Problem 1. (1 point) trig_int/trig_int05.pg

Evaluate the indefinite integral.

$$\int \sec^2(x) \tan^9(x) dx = \frac{1}{10} \tan^{10}(x) + C.$$

preview answers

Entered

Answer Preview

Result

(1/10)*([tan(x)]^10)

$\frac{1}{10} \tan^{10}(x)$

correct

The answer above is correct.

Problem 2. (1 point) int_inv_trig/int_inv_trig02.pg

Evaluate the indefinite integral.

$$\int \frac{1}{\sqrt{1-x^2}} dx = \arcsin x + C.$$

preview answers

Entered

Answer Preview

Result

asin(x)

 $\sin^{-1}(x)$

correct

The answer above is correct.

Problem 3. (1 point) parts/parts01.pg

Evaluate the indefinite integral.

$$\int x e^x dx = x \cdot e^x - e^x + C.$$

[preview answers](#)
Entered $x \cdot (e^x) - (e^x)$ **Answer Preview** $x e^x - e^x$ **Result**

correct

The answer above is correct.

Problem 4. (1 point) def_int/def_int11.pg

Evaluate the definite integral.

$$\int_0^{\pi/6} 3 \sec(x) \tan(x) dx = 3 \sec\left(\frac{\pi}{6}\right) - 3 \sec 0.$$

[preview answers](#)
Entered

0.464102

Answer Preview $3 \sec\left(\frac{\pi}{6}\right) - 3 \sec(0)$ **Result**

correct

The answer above is correct.

Problem 5. (1 point) u-sub/u-sub01.pg

Evaluate the indefinite integral.

$\int \sin\left(5x + \frac{\pi}{2}\right) dx = -\frac{1}{5} \cos\left(5x + \frac{\pi}{2}\right) + C.$

preview answers

Entered	Answer Preview	Result
$-(1/5)*\cos(5*x+(pi/2))$	$-\frac{1}{5} \cos\left(5x + \frac{\pi}{2}\right)$	correct

The answer above is correct.

Problem 6. (1 point) u-sub/u-sub12.pg

Evaluate the indefinite integral.

$\int \cot(x) dx = \ln|\sin x| + C.$

preview answers

Entered	Answer Preview	Result
$\ln(\sin(x))$	$\ln(\sin(x))$	correct

The answer above is correct.

Jump to Problem:

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% Score:

100

100

100

100

100

100

- ☐ Show correct answers
- ☐ Show Solutions
- ☐ Show problem graders

Preview Test

Check Test

Show Past Answers