Name_____

Integration - Trigonometric Functions

Date_____ Period_____

Evaluate each indefinite integral.

1) $\displaystyle \int \cos x \, dx$

2) $\displaystyle \int -5\sin x \, dx$

3) $\displaystyle \int 3 \cdot \sec^2 x \, dx$

4) $\displaystyle \int -3\csc x \cdot \cot x \, dx$

5) $\displaystyle \int \frac{2}{\sec x} \, dx$

6) $\displaystyle \int \frac{5}{\csc x} \, dx$

7) $\displaystyle \int -4\tan x \, dx$

8) $\displaystyle \int -\cot x \, dx$

Integration - Trigonometric Functions

Evaluate each indefinite integral.

1) $\int \cos x \, dx$

$\sin x + C$

2) $\int -5\sin x \, dx$

$5\cos x + C$

3) $\int 3 \cdot \sec^2 x \, dx$

$3\tan x + C$

4) $\int -3\csc x \cdot \cot x \, dx$

$3\csc x + C$

5) $\int \dfrac{2}{\sec x} \, dx$

$2\sin x + C$

6) $\int \dfrac{5}{\csc x} \, dx$

$-5\cos x + C$

7) $\int -4\tan x \, dx$

$-4 \ln \left| \sec x \right| + C$

8) $\int -\cot x \, dx$

$-\ln \left| \sin x \right| + C$

Name_____

Integration - Logarithmic Rule and Exponentials

Date_____ Period_____

Evaluate each indefinite integral.

1) $\int x^{-1} \, dx$

2) $\int 3x^{-1} \, dx$

3) $\int -\frac{1}{x} \, dx$

4) $\int \frac{1}{x} \, dx$

5) $\int -e^x \, dx$

6) $\int e^x \, dx$

7) $\int 2 \cdot 3^x \, dx$

8) $\int 3 \cdot 5^x \, dx$

Name_____

Integration - Logarithmic Rule and Exponentials

Date_____ Period_____

Evaluate each indefinite integral.

1) $\displaystyle\int x^{-1}\ dx$

$\ln |x| + C$

2) $\displaystyle\int 3x^{-1}\ dx$

$3\ln |x| + C$

3) $\displaystyle\int -\frac{1}{x}\ dx$

$-\ln |x| + C$

4) $\displaystyle\int \frac{1}{x}\ dx$

$\ln |x| + C$

5) $\displaystyle\int -e^{x}\ dx$

$-e^{x} + C$

6) $\displaystyle\int e^{x}\ dx$

$e^{x} + C$

7) $\displaystyle\int 2 \cdot 3^{x}\ dx$

$\dfrac{2 \cdot 3^{x}}{\ln 3} + C$

8) $\displaystyle\int 3 \cdot 5^{x}\ dx$

$\dfrac{3 \cdot 5^{x}}{\ln 5} + C$