Edulyte

ANTIDERIVATIVE FORMULA

The antiderivative is a function that you can describe as the exact opposite of the function of a derivative. It is similar to the original derivative of the function. The antiderivative function is similar to an indefinite integral. You use the antiderivative to find the total of specific things and also can calculate the amount of distance and time. It is the differentiable function whose derivative is equal to the original function.

Read more

Q1: The power rule for antiderivatives states that the antiderivative of x^n, where n is not equal to -1, is:

A: (1/n+1) * x^(n+1)
B: x^(n+1)
C: x^n
D: 1/(n+1) * x^(n+1)

Q2: What is the antiderivative of e^x?

A: ln(x)
B: e^x + C
C: e^(x+1)
D: (1/e) * e^x

Q3: Which of the following represents the antiderivative of a sum of two functions, f(x) + g(x)?

A: ∫(f(x) + g(x)) dx
B: ∫f(x) dx + ∫g(x) dx
C: ∫f(x) + g(x) dx
D: f(x) + g(x)

Q4: What is the antiderivative of 3x?

A: x^2
B: $x^2 + C$
C: $\frac{2}{5} + C$
D: $3/2\ x^2 + C$

Q5: Identify the Rule to use for the Derivative of Sin3x

A: Power Rule
B: Log Rule
C: Trigonometric Rule
D: Exponential Rule

Q6: What is the Antiderivative of X^4?

A: $\frac{1}{5} x^5 + C$
B: $X^4 + C$
C: X^2
D: $\frac{1}{5} x^5 - C$

Q7: Which Rule do you use for the Antiderivative of Exponents?

A: Power Rule
B: Exponential Rule
C: Log Rule
D: Trigonometric Rule

Q8: What is the Antiderivative of Sin4x?

A: ¼ sin(4x) + C
B: ¼ cos(4x)
C: ¼ cos(x) + C
D: -¼ cos(4x) + C

Q9: What is the Derivative of X?

A: nx^(n-1)
B: nx(n-1)
C: n-1
D: n

Q10: What is the Antiderivative of X^-2?

A: 1/x + C
B: x + C
C: -1/x + C
D: x + C / 1/Xa

Answers

Q1: A - (1/n+1) * x^(n+1)

Q2: B - e^x + C

Q3: A - ∫(f(x) + g(x)) dx

Q4: D - 3/2 x^2 + C

Q5: C - Trigonometric Rule

Q6: A - ⅕ x^5 + C

Q7: B - Exponential Rule

Q8: D - -¼ cos(4x) + C

Q9: A - nx^(n-1)

Q10: C - -1/x + C