

Derivative Flashcards PDF

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What is the derivative of a constant?

The derivative of a constant is zero.

What is the power rule for derivatives?

The power rule states that if $f(x) = x^n$, then $f'(x) = n \cdot x^{(n-1)}$.

What is the derivative of $\sin(x)$?

The derivative of $\sin(x)$ is $\cos(x)$.

What is the derivative of $\cos(x)$?

The derivative of $\cos(x)$ is $-\sin(x)$.

What is the product rule for derivatives?

The product rule states that if u and v are functions of x , then $(uv)' = u'v + uv'$.

What is the quotient rule for derivatives?

The quotient rule states that if u and v are functions of x , then $(u/v)' = (u'v - uv')/v^2$.

What is the chain rule for derivatives?

The chain rule states that if $y = f(g(x))$, then $dy/dx = f'(g(x)) * g'(x)$.

What is the derivative of e^x ?

The derivative of e^x is e^x .

What is the derivative of $\ln(x)$?

The derivative of $\ln(x)$ is $1/x$.

What is the derivative of $\tan(x)$?

The derivative of $\tan(x)$ is $\sec^2(x)$.