



Derivative Rules - Multi Product Natural Exponential Trigonometric (with Rule) to Derivative

1 Find the derivative $f'(x)$ using the product, natural exponential, and trigonometric rules. $\frac{d}{dx} \cos(x) = -\sin(x)$ $f(x) = (2e^x)(4 \cos(x))$ A $f'(x) = (2e^x)(4 \cos(x))$ B $f(x) = (2e^x)(4 \cos(x)) - (2e^x)(-4 \sin(x))$ C $f'(x) = (2e^x)(4 \cos(x)) + (2e^x)(-4 \sin(x))$ D $f(x) = (2e^x)(-4 \sin(x))$	2 Find the derivative $f'(x)$ using the product, natural exponential, and trigonometric rules. $\frac{d}{dx} \sin(x) = \cos(x)$ $f(x) = (e^x)(4 \sin(x))$ A $f'(x) = (e^x)(4 \sin(x)) - (e^x)(4 \cos(x))$ B $f(x) = (e^x)(4 \sin(x)) + (e^x)(4 \cos(x))$ C $f'(x) = (e^x)(4 \sin(x))$ D $f'(x) = (e^x)(4 \cos(x))$
3 Find the derivative $f'(x)$ using the product, natural exponential, and trigonometric rules. $\frac{d}{dx} \sin(x) = \cos(x)$ $f(x) = (3e^x)(5 \sin(x))$ A $f'(x) = (3e^x)(5 \sin(x))$ B $f'(x) = (3e^x)(5 \cos(x))$ C $f'(x) = (3e^x)(5 \sin(x)) + (3e^x)(5 \cos(x))$ D $f(x) = (3e^x)(5 \sin(x)) - (3e^x)(5 \cos(x))$	4 Find the derivative $f'(x)$ using the product, natural exponential, and trigonometric rules. $\frac{d}{dx} e^x = e^x$ $f(x) = (3e^x)(5 \sin(x))$ A $f'(x) = (3e^x)(5 \cos(x))$ B $f(x) = (3e^x)(5 \sin(x)) + (3e^x)(5 \cos(x))$ C $f'(x) = (3e^x)(5 \sin(x))$ D $f(x) = (3e^x)(5 \sin(x)) - (3e^x)(5 \cos(x))$
5 Find the derivative $f'(x)$ using the product, natural exponential, and trigonometric rules. if $h(x) = f(x)g(x)$, $h'(x) = f'(x)g(x) + f(x)g'(x)$ $f(x) = (4e^x)(5 \cos(x))$ A $f'(x) = (4e^x)(-5 \sin(x))$ B $f(x) = (4e^x)(5 \cos(x)) - (4e^x)(-5 \sin(x))$ C $f'(x) = (4e^x)(5 \cos(x))$ D $f(x) = (4e^x)(5 \cos(x)) + (4e^x)(-5 \sin(x))$	6 Find the derivative $f'(x)$ using the product, natural exponential, and trigonometric rules. $\frac{d}{dx} e^x = e^x$ $f(x) = (4e^x)(3 \sin(x))$ A $f'(x) = (4e^x)(3 \sin(x))$ B $f(x) = (4e^x)(3 \sin(x)) + (4e^x)(3 \cos(x))$ C $f'(x) = (4e^x)(3 \cos(x))$ D $f(x) = (4e^x)(3 \sin(x)) - (4e^x)(3 \cos(x))$
7 Find the derivative $f'(x)$ using the product, natural exponential, and trigonometric rules. $\frac{d}{dx} e^x = e^x$ $f(x) = (3e^x)(\cos(x))$ A $f(x) = (3e^x)(\cos(x)) + (3e^x)(-\sin(x))$ B $f'(x) = (3e^x)(\cos(x))$ C $f(x) = (3e^x)(\cos(x)) - (3e^x)(-\sin(x))$ D $f(x) = (3e^x)(-\sin(x))$	8 Find the derivative $f'(x)$ using the product, natural exponential, and trigonometric rules. $\frac{d}{dx} e^x = e^x$ $f(x) = (3e^x)(4 \cos(x))$ A $f'(x) = (3e^x)(4 \cos(x))$ B $f'(x) = (3e^x)(-4 \sin(x))$ C $f(x) = (3e^x)(4 \cos(x)) + (3e^x)(-4 \sin(x))$ D $f(x) = (3e^x)(4 \cos(x)) - (3e^x)(-4 \sin(x))$