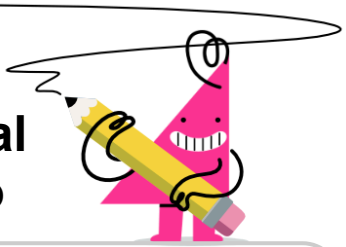
Name



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

1

Find the derivative f'(x) using the product, natural exponential, and general exponential rules.

$$\frac{d}{dx}e^x = e^x$$

$$f(x) = (3e^x)(5 \cdot 9^x)$$

A $f'(x) = (3e^x)(5 \cdot 9^x \ln 9)$

B $f'(x) = (3e^x)(5 \cdot 9^x) + (3e^x)(5 \cdot 9^x \ln 9)$

C $f'(x) = (3e^x)(5 \cdot 9^x)$

D $f'(x) = (3e^x)(5 \cdot 9^x) - (3e^x)(5 \cdot 9^x \ln 9)$

2

Find the derivative f'(x) using the product, natural exponential, and general exponential rules.

if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$

$$f(x) = (5e^x)(8^x)$$

A $f'(x) = (5e^x)(8^x) + (5e^x)(8^x \ln 8)$

B $f'(x) = (5e^x)(8^x)$

C $f'(x) = (5e^x)(8^x \ln 8)$

D $f'(x) = (5e^x)(8^x) - (5e^x)(8^x \ln 8)$

3

Find the derivative f'(x) using the product, natural exponential, and general exponential rules.

if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$

$$f(x) = (3e^x)(3 \cdot 7^x)$$

A $f'(x) = (3e^x)(3 \cdot 7^x) - (3e^x)(3 \cdot 7^x \ln 7)$

B $f'(x) = (3e^x)(3 \cdot 7^x \ln 7)$

C $f'(x) = (3e^x)(3 \cdot 7^x)$

D $f'(x) = (3e^x)(3 \cdot 7^x) + (3e^x)(3 \cdot 7^x \ln 7)$

4

Find the derivative f'(x) using the product, natural exponential, and general exponential rules.

$$\frac{d}{dx}a^x = a^x \ln a$$

$$f(x) = (2e^x)(5 \cdot 7^x)$$

A $f'(x) = (2e^x)(5 \cdot 7^x) - (2e^x)(5 \cdot 7^x \ln 7)$

B $f'(x) = (2e^x)(5 \cdot 7^x) + (2e^x)(5 \cdot 7^x \ln 7)$

C $f'(x) = (2e^x)(5 \cdot 7^x \ln 7)$

D $f'(x) = (2e^x)(5 \cdot 7^x)$

5

Find the derivative f'(x) using the product, natural exponential, and general exponential rules.

$$\frac{d}{dx}e^x = e^x$$

$$f(x) = (4e^x)(2 \cdot 3^x)$$

A $f'(x) = (4e^x)(2 \cdot 3^x \ln 3)$

B $f'(x) = (4e^x)(2 \cdot 3^x) - (4e^x)(2 \cdot 3^x \ln 3)$

C $f'(x) = (4e^x)(2 \cdot 3^x)$

D $f'(x) = (4e^x)(2 \cdot 3^x) + (4e^x)(2 \cdot 3^x \ln 3)$

6

Find the derivative f'(x) using the product, natural exponential, and general exponential rules.

$$\frac{d}{dx}a^x = a^x \ln a$$

$$f(x) = (2e^x)(4 \cdot 5^x)$$

A $f'(x) = (2e^x)(4 \cdot 5^x \ln 5)$

B $f'(x) = (2e^x)(4 \cdot 5^x) - (2e^x)(4 \cdot 5^x \ln 5)$

C $f'(x) = (2e^x)(4 \cdot 5^x) + (2e^x)(4 \cdot 5^x \ln 5)$

D $f'(x) = (2e^x)(4 \cdot 5^x)$

7

$$\frac{d}{dx}a^x = a^x \ln a$$

$$f(x) = (e^x)(4 \cdot 3^x)$$

Find the derivative f'(x) using the product, natural exponential, and general exponential rules.

A $f'(x) = (e^x)(4 \cdot 3^x) - (e^x)(4 \cdot 3^x \ln 3)$

B $f'(x) = (e^x)(4 \cdot 3^x \ln 3)$

C $f'(x) = (e^x)(4 \cdot 3^x) + (e^x)(4 \cdot 3^x \ln 3)$

D $f'(x) = (e^x)(4 \cdot 3^x)$

8

Find the derivative f'(x) using the product, natural exponential, and general exponential rules.

if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$

$$f(x) = (e^x)(4 \cdot 7^x)$$

A $f'(x) = (e^x)(4 \cdot 7^x)$

B $f'(x) = (e^x)(4 \cdot 7^x) - (e^x)(4 \cdot 7^x \ln 7)$

C $f'(x) = (e^x)(4 \cdot 7^x \ln 7)$

D $f'(x) = (e^x)(4 \cdot 7^x) + (e^x)(4 \cdot 7^x \ln 7)$