Name

Derivative Rules - Trigonometric Angle Binomial (with Rule) to Derivative

1

Find the derivative f'(x) using the trigonometric rules and the chain rule.

$\frac{d}{dx}\cos(u) = -\sin(u)\cdot\frac{du}{dx}$

$f(x) = \cos(2x^4 - x)$

A $f'(x) = -\sin(2x^4 - x)\cdot(2x^4 - x)$

B $f'(x) = \cos(2x^4 - x)\cdot(8x^3 - 1)$

C $f'(x) = -\sin(2x^4 - x)$

D $f'(x) = -\sin(2x^4 - x)\cdot(8x^3 - 1)$

2

Find the derivative f'(x) using the trigonometric rules and the chain rule.

$\frac{d}{dx}\cos(u) = -\sin(u)\cdot\frac{du}{dx}$

$f(x) = 2\cos(x^2 - 2x)$

A $f'(x) = 2\cos(x^2 - 2x)\cdot(2x - 2)$

B $f'(x) = -2\sin(x^2 - 2x)\cdot(x^2 - 2x)$

C $f'(x) = -2\sin(x^2 - 2x)\cdot(2x - 2)$

D $f'(x) = -2\sin(x^2 - 2x)$

3

Find the derivative f'(x) using the trigonometric rules and the chain rule.

$\frac{d}{dx}\sin(u) = \cos(u)\cdot\frac{du}{dx}$

$f(x) = 3\sin(2x^3 - 3x^2)$

A $f'(x) = 3\cos(2x^3 - 3x^2)$

B $f'(x) = 3\cos(2x^3 - 3x^2)\cdot(2x^3 - 3x^2)$

C $f'(x) = 3\cos(2x^3 - 3x^2)\cdot(6x^2 - 6x)$

D $f'(x) = 3\sin(2x^3 - 3x^2)\cdot(6x^2 - 6x)$

4

Find the derivative f'(x) using the trigonometric rules and the chain rule.

$\frac{d}{dx}\cos(u) = -\sin(u)\cdot\frac{du}{dx}$

$f(x) = 5\cos(x^3 - 2x)$

A $f'(x) = -5\sin(x^3 - 2x)\cdot(3x^2 - 2)$

B $f'(x) = -5\sin(x^3 - 2x)$

C $f'(x) = -5\sin(x^3 - 2x)\cdot(x^3 - 2x)$

D $f'(x) = 5\cos(x^3 - 2x)\cdot(3x^2 - 2)$

5

Find the derivative f'(x) using the trigonometric rules and the chain rule.

$\frac{d}{dx}\cos(u) = -\sin(u)\cdot\frac{du}{dx}$

$f(x) = 5\cos(3x^2 - 3x)$

A $f'(x) = -5\sin(3x^2 - 3x)\cdot(6x - 3)$

B $f'(x) = -5\sin(3x^2 - 3x)$

C $f'(x) = -5\sin(3x^2 - 3x)\cdot(3x^2 - 3x)$

D $f'(x) = 5\cos(3x^2 - 3x)\cdot(6x - 3)$

6

Find the derivative f'(x) using the trigonometric rules and the chain rule.

$\frac{d}{dx}\sin(u) = \cos(u)\cdot\frac{du}{dx}$

$f(x) = 3\sin(2x^3 - x)$

A $f'(x) = 3\sin(2x^3 - x)\cdot(6x^2 - 1)$

B $f'(x) = 3\cos(2x^3 - x)\cdot(2x^3 - x)$

C $f'(x) = 3\cos(2x^3 - x)$

D $f'(x) = 3\cos(2x^3 - x)\cdot(6x^2 - 1)$

7

Find the derivative f'(x) using the trigonometric rules and the chain rule.

$\frac{d}{dx}\sin(u) = \cos(u)\cdot\frac{du}{dx}$

$f(x) = 2\sin(x^3 - x)$

A $f'(x) = 2\sin(x^3 - x)\cdot(3x^2 - 1)$

B $f'(x) = 2\cos(x^3 - x)$

C $f'(x) = 2\cos(x^3 - x)\cdot(x^3 - x)$

D $f'(x) = 2\cos(x^3 - x)\cdot(3x^2 - 1)$

8

Find the derivative f'(x) using the trigonometric rules and the chain rule.

$\frac{d}{dx}\sin(u) = \cos(u)\cdot\frac{du}{dx}$

$f(x) = 4\sin(2x^4 - 2x)$

A $f'(x) = 4\cos(2x^4 - 2x)\cdot(8x^3 - 2)$

B $f'(x) = 4\cos(2x^4 - 2x)$

C $f'(x) = 4\sin(2x^4 - 2x)\cdot(8x^3 - 2)$

D $f'(x) = 4\cos(2x^4 - 2x)\cdot(2x^4 - 2x)$