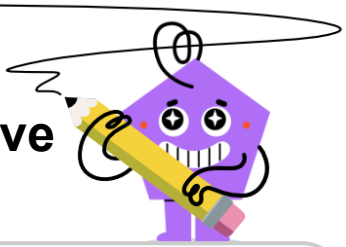
Name



Derivative Rules - Product Rule Negative Fractional Powers (with Rule) to Derivative

1 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (5x^{-\frac{2}{3}} - 7)(-2x^2 - 6)$

Find the derivative f'(x) using the product rule.

A	B	C	D
$f'(x) = (-\frac{10}{3}x^{-\frac{5}{3}})(-2x^2-6) - (5x^{-\frac{1}{3}}-7)(-4x)$	$f'(x) = (-\frac{10}{3}x^{-\frac{5}{3}})(-4x)$	$f'(x) = (-\frac{10}{3}x^{-\frac{5}{3}})(-2x^2-6)$	$f'(x) = (-\frac{10}{3}x^{-\frac{5}{3}})(-2x^2-6) + (5x^{-\frac{1}{3}}-7)(-4x)$

2 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (5x^{-\frac{2}{3}} - 2)(4x)$

Find the derivative f'(x) using the product rule.

A	B	C	D
$f'(x) = (-\frac{10}{3}x^{-\frac{5}{3}})(4x) + (5x^{-\frac{2}{3}}-2)(4)$	$f'(x) = (-\frac{10}{3}x^{-\frac{5}{3}})(4x)$	$f'(x) = (-\frac{10}{3}x^{-\frac{5}{3}})(4)$	$f'(x) = (-\frac{10}{3}x^{-\frac{5}{3}})(4x) - (5x^{-\frac{2}{3}}-2)(4)$

3 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (-5x^{-\frac{1}{2}} + 6)(5x)$

Find the derivative f'(x) using the product rule.

A	B	C	D
$f'(x) = (\frac{5}{2}x^{-\frac{3}{2}})(5)$	$f'(x) = (\frac{5}{2}x^{-\frac{3}{2}})(5x)$	$f'(x) = (\frac{5}{2}x^{-\frac{1}{2}})(5x) + (-5x^{-\frac{1}{2}}+6)(5)$	$f'(x) = (\frac{5}{2}x^{-\frac{1}{2}})(5x) - (-5x^{-\frac{1}{2}}+6)(5)$

4 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (3x^{-\frac{1}{3}} - 7)(-3x^2)$

Find the derivative f'(x) using the product rule.

A	B	C	D
$f'(x) = (-x^{-\frac{4}{3}})(-6x)$	$f'(x) = (-x^{-\frac{4}{3}})(-3x^2)$	$f'(x) = (-x^{-\frac{4}{3}})(-3x^2) - (3x^{-\frac{1}{3}}-7)(-6x)$	$f'(x) = (-x^{-\frac{4}{3}})(-3x^2) + (3x^{-\frac{1}{3}}-7)(-6x)$

5 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (4x^{-\frac{1}{2}} - 7)(3x - 2)$

Find the derivative f'(x) using the product rule.

A	B	C	D
$f'(x) = (-2x^{-\frac{3}{2}})(3x-2)$	$f'(x) = (-2x^{-\frac{3}{2}})(3)$	$f'(x) = (-2x^{-\frac{1}{2}})(3x-2) - (4x^{-\frac{1}{2}}-7)(3)$	$f'(x) = (-2x^{-\frac{1}{2}})(3x-2) + (4x^{-\frac{1}{2}}-7)(3)$

6 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (4x^{-\frac{2}{3}} + 4)(-5x - 2)$

Find the derivative f'(x) using the product rule.

A	B	C	D
$f'(x) = (\frac{8}{3}x^{-\frac{1}{3}})(-5x-2) - (4x^{-\frac{1}{3}}+4)(-5)$	$f'(x) = (-\frac{8}{3}x^{-\frac{5}{3}})(-5)$	$f'(x) = (\frac{8}{3}x^{-\frac{1}{3}})(-5x-2) + (4x^{-\frac{1}{3}}+4)(-5)$	$f'(x) = (-\frac{8}{3}x^{-\frac{5}{3}})(-5x-2)$

7 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (-2x^{-\frac{4}{3}} + 2)(3x + 7)$

Find the derivative f'(x) using the product rule.

A	B	C	D
$f(x) = (\frac{8}{3}x^{-\frac{1}{3}})(3x+7) - (-2x^{-\frac{1}{3}}+2)(3)$	$f(x) = (\frac{8}{3}x^{-\frac{1}{3}})(3x+7) + (-2x^{-\frac{1}{3}}+2)(3)$	$f'(x) = (\frac{8}{3}x^{-\frac{7}{3}})(3)$	$f'(x) = (\frac{8}{3}x^{-\frac{7}{3}})(3x+7)$

8 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (2x^{-\frac{3}{2}} + 7)(-2x - 5)$

Find the derivative f'(x) using the product rule.

A	B	C	D
$f'(x) = (-3x^{-\frac{5}{2}})(-2)$	$f'(x) = (-3x^{-\frac{5}{2}})(-2x-5)$	$f(x) = (-3x^{-\frac{1}{2}})(-2x-5) + (2x^{-\frac{3}{2}}+7)(-2)$	$f(x) = (-3x^{-\frac{1}{2}})(-2x-5) - (2x^{-\frac{3}{2}}+7)(-2)$