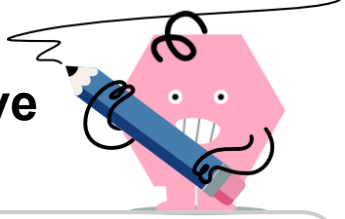
Name

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



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

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

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

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

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

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

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

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

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

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

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

A	B	C	D
$f'(x) = (\frac{15}{2}x^{\frac{1}{2}})(2x^2)$	$f'(x) = (\frac{15}{2}x^{\frac{1}{2}})(2x^2) + (5x^{\frac{3}{2}}-6)(4x)$	$f'(x) = (\frac{15}{2}x^{\frac{1}{2}})(4x)$	$f'(x) = (\frac{15}{2}x^{\frac{1}{2}})(2x^2) - (5x^{\frac{3}{2}}-6)(4x)$

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

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

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

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

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

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

7 if $h(x) = f(x)\,g(x),\ h'(x) = f'(x)\,g(x) + f(x)\,g'(x)$
$f(x) = (4x^{\frac{1}{3}} - 3)(4x^2 + 6)$

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

A	B	C	D
$f'(x) = (\frac{4}{3}x^{-\frac{2}{3}})(8x)$	$f'(x) = (\frac{4}{3}x^{-\frac{2}{3}})(4x^2+6) + (4x^{\frac{1}{3}}-3)(8x)$	$f'(x) = (\frac{4}{3}x^{-\frac{2}{3}})(4x^2+6) - (4x^{\frac{1}{3}}-3)(8x)$	$f'(x) = (\frac{4}{3}x^{-\frac{2}{3}})(4x^2+6)$

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

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

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