



Basic Derivatives - Positive Integer Power (with Rule) to Derivative

1 Find the derivative $f'(x)$ using the power rule.

if $f(x) = x^n$, $f'(x) = n x^{n-1}$
 $f(x) = x^3$

A $f'(x) = 3x^4$

B $f'(x) = x^2$

C $f'(x) = 3x^3$

D $f'(x) = 3x^2$

2 Find the derivative $f'(x)$ using the power rule.

if $f(x) = x^n$, $f'(x) = n x^{n-1}$
 $f(x) = x^5$

A $f'(x) = x^4$

B $f'(x) = 5x^4$

C $f'(x) = 5x^5$

D $f'(x) = 5x^6$

3 Find the derivative $f'(x)$ using the power rule.

if $f(x) = x^n$, $f'(x) = n x^{n-1}$
 $f(x) = x^4$

A $f'(x) = 4x^3$

B $f'(x) = 4x^5$

C $f'(x) = x^3$

D $f'(x) = 4x^4$

4 Find the derivative $f'(x)$ using the power rule.

if $f(x) = x^n$, $f'(x) = n x^{n-1}$
 $f(x) = x^6$

A $f'(x) = 6x^5$

B $f'(x) = 6x^6$

C $f'(x) = x^5$

D $f'(x) = 6x^7$

5 Find the derivative $f'(x)$ using the power rule.

if $f(x) = x^n$, $f'(x) = n x^{n-1}$
 $f(x) = x^2$

A $f'(x) = 2x^3$

B $f'(x) = 2x^2$

C $f'(x) = x$

D $f'(x) = 2x$