



Basic Derivatives - Negative Integer Power with Coefficient as Division to Derivative

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

$$f(x) = \frac{3}{x^5}$$

A $f'(x) = 3x^{-6}$ B $f'(x) = -15x^{-6}$

C $f'(x) = -15x^{-5}$ D $f'(x) = -15x^{-4}$

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

$$f(x) = \frac{4}{x^4}$$

A $f'(x) = -16x^{-4}$ B $f'(x) = 4x^{-5}$

C $f'(x) = -16x^{-3}$ D $f'(x) = -16x^{-5}$

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

$$f(x) = \frac{8}{x^2}$$

A $f'(x) = -16x^{-2}$ B $f'(x) = -16x^{-3}$

C $f'(x) = -16x^{-1}$ D $f'(x) = 8x^{-3}$

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

$$f(x) = \frac{5}{x^2}$$

A $f'(x) = 5x^{-3}$ B $f'(x) = -10x^{-1}$

C $f'(x) = -10x^{-3}$ D $f'(x) = -10x^{-2}$

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

$$f(x) = -\frac{6}{x^5}$$

A $f'(x) = 30x^{-6}$ B $f'(x) = 30x^{-4}$

C $f'(x) = 30x^{-5}$ D $f'(x) = -6x^{-6}$

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

$$f(x) = \frac{5}{x^1}$$

A $f'(x) = -5$ B $f'(x) = -5x^{-1}$

C $f'(x) = -5x^{-2}$ D $f'(x) = 5x^{-2}$

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

$$f(x) = -\frac{3}{x^1}$$

A $f'(x) = 3$ B $f'(x) = 3x^{-1}$

C $f'(x) = 3x^{-2}$ D $f'(x) = -3x^{-2}$

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

$$f(x) = \frac{6}{x^4}$$

A $f'(x) = -24x^{-3}$ B $f'(x) = 6x^{-5}$

C $f'(x) = -24x^{-5}$ D $f'(x) = -24x^{-4}$