Name

Derivative Rules - Sum Rule Negative Powers to Derivative

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

$$f(x) = -2x^{-1} + 5x$$

A $f'(x) = 2x^{-1} + 5x$	B $f'(x) = -2x^{-2} + 5$
C $f'(x) = 2x^{-2} + 5$	

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

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

A $f'(x) = 9x^{-4} - 6x$	B $f'(x) = -3x^{-4} - 3x$
C $f'(x) = 9x^{-3} - 6x^{2}$	

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

$$f(x) = 3x^{-1} + 5x - 2x^{2}$$

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

4 Find the derivative f'(x) using the sum rule. $f(x) = 5x^{-2} - 4$

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

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

$$f(x) = -3x^{-1} + 2x$$

A $f'(x) = 3x^{-2} + 2$	B $f'(x) = 3x^{-1} + 2x$
C $f'(x) = -3x^{-2} + 2$	

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

$$f(x) = -2x^{-3} + 4x^{2} - 3$$

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

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

$$f(x) = -3x^{-3} + 3x + 2x^{3}$$

A $f'(x) = 9x^{-4} + 3 + 6x^{2}$	B $f'(x) = 9x^{-3} + 3x + 6x^{3}$
C $f'(x) = -3x^{-4} + 3 + 2x^{2}$	

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

$$f(x) = -4x^{-2} + 4$$

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