

Objective: Find the derivative of a function using the Sum and Difference Rules.

Find the derivative of the function $f(x) = 2x^3 - 3x + 1$.

ANSWER:

Remember: $\frac{d}{dx}[f(x) + g(x)] = f'(x) + g'(x)$ and $\frac{d}{dx}[f(x) - g(x)] = f'(x) - g'(x)$

$$\begin{aligned}\text{So, } f'(x) &= 2(3)x^2 - 3(1)x^0 + 0 \\ &= 6x^2 - 3\end{aligned}$$