

$$y = (3x-1)^2$$

$$y = 9x^2 - 6x + 1$$

$$y' = 18x - 6$$

$$y = [f(x)]^2$$

$$y = x^2 \Rightarrow y' = 2x$$

$$f(x) = 3x - 1$$

$$f'(x) = 3$$

$$y' = 2f(x) \cdot f'(x)$$

$$y' = 2(3x-1) \cdot 3 = 6(3x-1) = 18x - 6$$

$$y = (5x^2 - 3x + 2)^5 = [f(x)]^5$$

$$y' = 5[f(x)]^4 \cdot f'(x)$$

$$y = x^5 \Rightarrow y' = 5x^4$$

$$y' = 5(5x^2 - 3x + 2)^4 (10x - 3)$$

$$y = (3x^3 - 2x^2 + 4)^3$$

$$y' = 3(3x^3 - 2x^2 + 4)^2 (9x^2 - 4x)$$

$$y = \frac{4x-5}{(3-2x)^2} \Rightarrow y' = \frac{4(3-2x)^2 - 2(3-2x)(-2)(4x-5)}{(3-2x)^4}$$

$$y' = \frac{(3-2x) [4(3-2x) + 4(4x-5)]}{(3-2x)^4} = \frac{4(3-2x+4x-5)}{(3-2x)^3}$$

$$y' = \frac{4(2x-2)}{(3-2x)^3} = \frac{8(x-1)}{(3-2x)^3}$$

