

$$28. \quad f(x) = x^4 \left[1 - \frac{2}{x+1} \right] = x^4 \left[\frac{x-1}{x+1} \right]$$

$$f'(x) = x^4 \left[\frac{(x+1) - (x-1)}{(x+1)^2} \right] + \left[\frac{x-1}{x+1} \right] (4x^3)$$

$$= x^4 \left[\frac{2}{(x+1)^2} \right] + \left[\frac{x^2-1}{(x+1)^2} \right] (4x^3)$$

$$= 2x^3 \left[\frac{2x^2 + x - 2}{(x+1)^2} \right]$$