

基本的微分運算

若 $f(x) = \frac{1}{2}x^3 - 2x^2 + 2x$ ，求 $f'(2)$

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

$$= \frac{3}{2}x^2 - 4x + 2$$

$$\therefore f'(2) = \frac{3}{2} \times 4^2 - 8 + 2$$

$$= 0$$