

$$f(x) = x^4 - x^3, x \in [-2, 2]$$

$$\text{令 } f'(x) = 4x^3 - 3x^2 = x^2(4x - 3) = 0$$

則  $x=0$  或  $\frac{3}{4}$  為臨界點

$$f(0) = 0, \quad f\left(\frac{3}{4}\right) = \frac{-27}{256}$$

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$$f(-2) = 24, \quad f(2) = 8$$

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極大值  $f(-2) = 24$

極小值  $f\left(\frac{3}{4}\right) = \frac{-27}{256}$ 。