① $f(x) = x^5\sqrt[3]{x^4-1}$ ② $y = \cos^4 7x$

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① $f'(x) = 5x^4(x^4-1)^{1/3} + x^5\left(\frac{1}{3}(x^4-1)^{-2/3}(4x^3)\right)$

$$f'(x) = 5x^4(x^4-1)^{1/3} + \frac{4x^8}{3(x^4-1)^{2/3}}$$

$$f'(x) = \frac{15x^4(x^4-1) + 4x^8}{3(x^4-1)^{2/3}} = \frac{x^4(15(x^4-1)+4x^4)}{3(x^4-1)^{2/3}}$$

$$\boxed{f'(x) = \frac{x^4(19x^4-15)}{3(x^4-1)^{2/3}}}$$

② $y = (\cos 7x)^4$

$y' = 4(\cos 7x)^3(-\sin 7x)(7)$

$$\boxed{y' = -28\cos^3 7x \sin 7x}$$