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① $\sin^6 x$

$\frac{dy}{dx}(\sin x^6)$

Using differentiation rules

$\frac{d}{dg}(\sin g \times \frac{dg}{dx} x^6)$

$\therefore \cos(g) \times 6x^5$

$= \cos(x^6) \times 6x^5$

$= 6x^5 \times \cos x^6$

$\therefore \sin^6 x = 6x^5 \times \cos x^6$

② $\cos^4 x \sin^3 x$

$\frac{dy}{dx}(\cos x^4 \sin x^3)$

Using differentiation rule

$\frac{dy}{dx} \cos x^4 \times \sin x^3 + \cos x^4 \times \frac{dy}{dx} \sin x^3$

$\therefore -\sin x^4 \times 4x^3 \times \sin x^3 + \cos x^4 \cos x^3 \times 3x^2$

$\cos^4 x \sin^3 x = 4x^3 \times \sin x^4 \sin x^3 + 3x^2 \times \cos x^4 \cos x^3$

③ $\cos x \sin^3 x$

$\frac{dy}{dx}(\cos x \sin x^3)$

Using differentiation rule

$\frac{dy}{dx}(\cos x \times \sin x^3 + \cos x \times \frac{dy}{dx} \sin x^3)$

$\therefore -\sin x \sin x^3 + \cos x \cos x^3 \times 3x^2$

$\therefore \cos x \sin^3 x = -\sin x \sin x^3 + 3x^2 \times \cos x \cos x^3$