The Derivative of $\frac{i^3}{3}$

$$\left(\frac{i^3}{3}\right)'.x = \lim_{h\to 0} \frac{\left(\frac{i^3}{3}\right).(x+h) - \left(\frac{i^3}{3}\right).x}{h}$$

$$= \lim_{h\to 0} \frac{\left(\frac{(x+h)^3}{3} - \frac{x^3}{3}\right)}{h}$$

$$= \lim_{h\to 0} \frac{\frac{1}{3}\left((x+h)^3 - x^3\right)}{h}$$

$$= \frac{1}{3} \lim_{h\to 0} \frac{(x+h)^3 - x^3}{h}$$

$$= \frac{1}{3} \lim_{h\to 0} \frac{(x^3+3x^2h+3xh^2+h^3)-x^3}{h}$$

$$= \frac{1}{3} \lim_{h\to 0} \frac{3x^2h+3xh^2+h^3}{h}$$

$$= \frac{1}{3} \lim_{h\to 0} 3x^2+3xh+h^2$$

$$= \frac{1}{3}\left(\lim_{h\to 0} 3x^2 + \lim_{h\to 0} 3xh + \lim_{h\to 0} h^2\right)$$

$$= \frac{1}{3}(3x^2+0+0)$$

$$= \left(\frac{1}{3}\right)(3x^2)$$

$$= x^2.$$

$$\therefore \left(\frac{i^3}{3}\right)' = i^2.$$