

CALCULUS

Calculus is coming, start hiding!!!

Or you could download **Photomath** and scan the expressions below to quickly freshen your math skills. Either way works.

Limits

$$\lim_{x \rightarrow 0} \frac{\sin(x)}{x}$$

$$\lim_{x \rightarrow +\infty} (x^3 - x^2 + 5)$$

$$\lim_{x \rightarrow 0} \left(\frac{\sin(5x)}{(5x)} \right)$$

$$\lim_{x \rightarrow -2} x^2 + 3x - 2$$

$$\lim_{x \rightarrow 0} \frac{(x^2 - 1)}{(x + 3)}$$

$$\lim_{x \rightarrow -3} \frac{(x^3 + 27)}{(x^2 - 9)}$$

$$\lim_{x \rightarrow 5} \frac{(\sqrt{x} - \sqrt{5})}{(x - 5)}$$

$$\lim_{x \rightarrow 2} \frac{(x - 2)}{(x^2 - 4)}$$

Derivation and integration

$$\frac{d}{dx}(3x^2)$$

$$\frac{d}{dx}(\cos(\theta))$$

$$\frac{d}{dx}(x + x^2)$$

$$\frac{d}{dx}(3x^3 - 2x^2 + 3x - 1)$$

$$\frac{d}{dx}(x \cdot \ln(2x))$$

$$\frac{d}{dx}(\sqrt{2} \cdot \sin(3x))$$

$$\frac{d}{dx}((x^2 - 2x + 2)e^x)$$

$$\frac{d}{dx}\left(\ln\left(\frac{1+x^2}{1-x^2}\right)\right)$$

$$\int \sin 2x \, dx$$

$$\int 2x \, dx$$

$$\int (2x^3 - 4x^2) \, dx$$

$$\int \frac{1}{\sqrt{x}} \, dx$$

$$\int_2^3 \left(\frac{z}{1+z^2}\right) \, dz$$