

RECAP

DAY 36
2 MAY 22

$$\frac{d}{dx} x^n = nx^{n-1}$$

$$\frac{d}{dx} \sin(x) = \cos(x), \quad \frac{d}{dx} \cos(x) = -\sin(x)$$

$$\frac{d}{dx} \tan(x) = \sec(x) \tan(x)$$

$$\frac{d}{dx} a^x = a^x \ln a, \quad \frac{d}{dx} \log_b(x) = \frac{1}{x \ln b}$$

$$\frac{d}{dx} \arcsin(x) = \frac{1}{\sqrt{1-x^2}}, \quad \frac{d}{dx} \arccos(x) = -\frac{1}{\sqrt{1-x^2}}$$

$$\frac{d}{dx} \arctan(x) = \frac{1}{1+x^2}$$

$$\frac{d}{dx} (f(x)g(x)) = f(x)g'(x) + g(x)f'(x)$$

$$\frac{d}{dx} \frac{f(x)}{g(x)} = \frac{g(x)f'(x) - f(x)g'(x)}{g(x)^2}$$

$$\frac{d}{dx} (f \circ g)(x) = f'(g(x))g'(x)$$