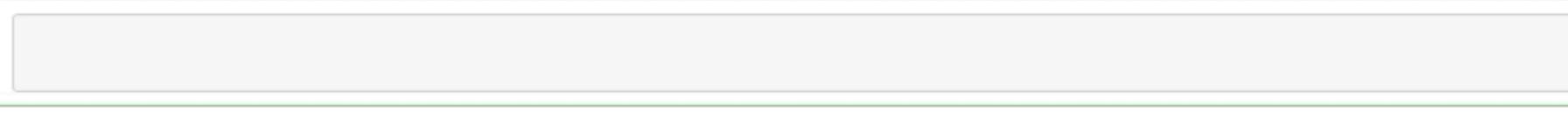


# Classifying Handwritten Math Symbols

Bianca Orozco

$$\left( \frac{x^3}{x+1} \right) \Big|_{-\infty}^{\infty} \parallel \frac{3}{n^2} \Big|_{\frac{\pi}{4}}^{\frac{\pi}{2}} \int \cos 2x dx - \sin 3x dx; \left( \frac{1}{\infty} \right) \parallel x^2 - x^2 - x^2$$

LaTeX

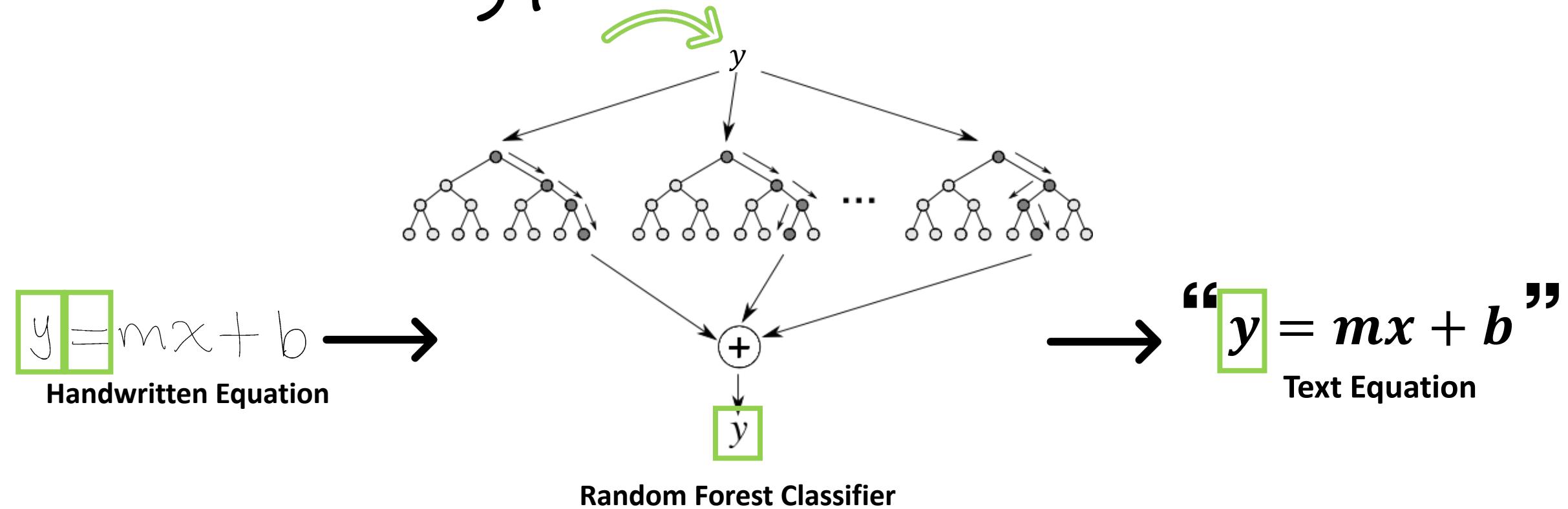


$$\bar{X} = \frac{1}{n} \sum_{i=1}^n x_i$$



$$\int \sqrt[4]{x^3} dx \quad \int \frac{dx}{8} \quad y \uparrow \curvearrowleft_{-\frac{\pi}{4}} \quad x^2 - x^3 - x \Big|_{\infty}^{\infty} \quad \frac{2}{5} x \quad y \uparrow \log_{\frac{1}{2}} x \quad \int dx \quad x^2 dx \quad \tilde{x}$$

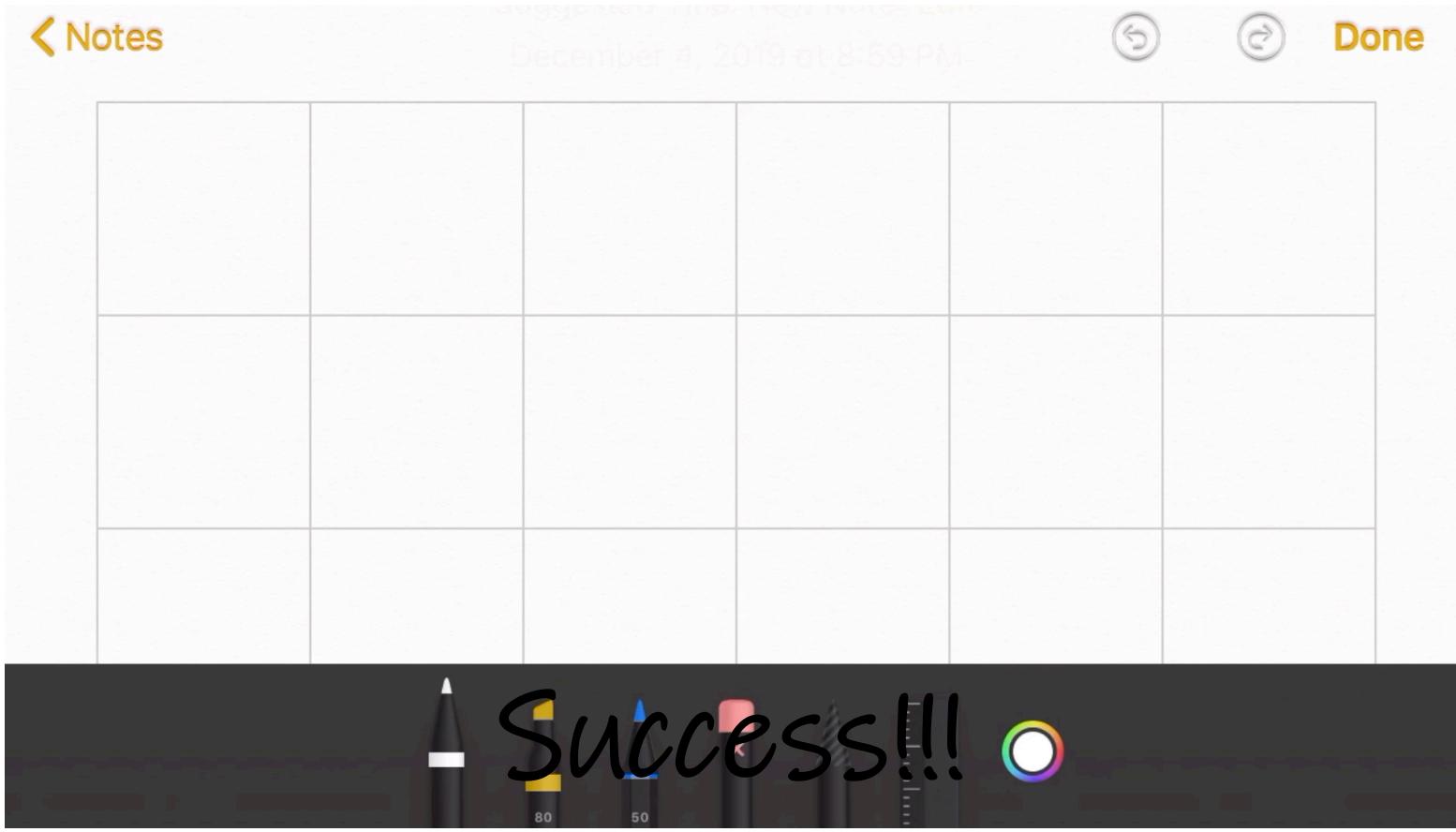
# Methodology



$$(x^3+1) \underset{\infty}{\approx} \frac{n^2}{n^2} \left| \frac{3}{4} \int_{-\frac{\pi}{4}}^{\frac{\pi}{4}} \cos 2x dx - \sin 3x dx \right| \underset{\infty}{\approx} x^2 - x^3 - x$$

$$m^2 \approx \frac{1}{2} \sin 3$$

# Demonstration



$$\sqrt[4]{x^3} dx \quad \int \frac{dx}{8} \quad y \uparrow \cup_{-\frac{\pi}{4}}^{\frac{\pi}{4}} \quad x^2 - x^3 - x \underset{\infty}{\approx} \frac{2}{5}x \quad y \uparrow \log_{\frac{1}{2}} x \quad \int_7^{\infty} dx \quad x^2 dx \quad \bar{x}$$

$$\ln x$$

# Uses and Next Steps

- Equation writing app + LaTeX/Word
- Variety of writing styles and math symbols

# Thank You



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