

Some Equations

Ben Siraphob

July 25, 2022

1 Introduction

Hello I am a piece of text. This is an equation: $E = mc^2$

$$E = mc^2 + x_1$$

$$\begin{aligned}\int_0^1 x^2 dx &= \frac{x^3}{3} \Big|_0^1 && \text{(inverse power rule)} \\ &= \frac{1^3}{3} - \frac{0^3}{3}\end{aligned}$$

Proof. We want to show that the sum of two even numbers is even. Let n and m be even numbers. Since n and m are even, there exists l and k such that $n = 2l$ and $m = 2k$. Then for $n + m$,

$$\begin{aligned}n + m &= 2l + 2k \\ &= 2(l + k)\end{aligned}$$

Which is clearly even. □

The normal distribution

Ok. Here are some greek letters:

- Lowercase: $\alpha, \beta, \gamma, \delta$
- Uppercase: $\Sigma, \Xi, \Gamma, \Delta$

$$f(x) = \frac{1}{\sigma\sqrt{2\pi}} e^{-\frac{1}{2}\left(\frac{x-\mu}{\sigma}\right)^2}$$
$$\left(\frac{1}{2}\right)^2$$