

These is my two equation

$$\int_0^1 x^k dx = 5 \quad (1)$$

$$x^2 + y^2 = z^2 \quad (2)$$

$$x^n + y^n = z^n, \quad \forall n \geq 3$$

$$x_{11}^{2k} + y_1^2 = z_1^2 \quad (3)$$

$$\sum_{i=1}^{\infty} a_{ij}^n + b_{ij}^n = \prod_{k=1}^n c_{ij}^k \quad (4)$$

From equation 3, we have got something.

Now I want to write another equation

$$\sin(x) = x - \frac{x^3}{3!} + \frac{x^5}{5!} - \dots (-1)^n \frac{x^{2n+1}}{(2n+1)!}$$

Sum $\sum_{n=1}^{\infty} 2^{-n} = 1$ inside text

Improved sum $\sum_{n=1}^{\infty} 2^{-n} = 1$ inside text. $\lim_{n \rightarrow \infty} x_n = 0$

$$\begin{vmatrix} 1 & 2 & 3 \\ 4 & 5 & 6 \\ 7 & 8 & \end{vmatrix}$$

$$\left\{ \begin{array}{ccc} 1 & 2 & 3 \\ 42 & 55 & 65 \\ 712 & 855 & 555 \end{array} \right.$$

$$f(x) = \begin{cases} x^2 & \text{if } x \geq 0 \\ x^3 & \text{if } x \leq 0 \end{cases}$$