Tarea 2 Herramientas Computacionales

August 30, 2014

Punto 1

$$\left(-\frac{\hbar^2}{2m}\nabla^2 + V\right)|\psi\rangle = i\hbar\frac{d|\psi}{dt} \tag{1}$$

$$\sum_{n=1}^{\infty}\frac{1}{n^2} = \frac{\pi^2}{6} \tag{2}$$

$$\left(\beta mc^2 + c\left(\alpha_1 p_1 + \alpha_2 p_2 + \alpha_3 p_3\right)\right)\psi\left(x,t\right) = i\hbar\frac{\partial\psi\left(x,t\right)}{\partial t} \tag{3}$$

$$\int_{\infty}^{\infty} e^{-\frac{x^2}{2\sigma^2}} = \sqrt{2\pi}\sigma \tag{4}$$

$$\frac{P}{A} = \frac{2\pi\left(kT\right)^4}{h^3c^2}\int_0^{\infty}\frac{x^3}{e^x-1}dx = \frac{2\pi^5k^4}{15h^3c^2}T^4 \tag{5}$$

$$\sum_i \vec{F_i} = m\vec{a} \tag{6}$$

$$\begin{pmatrix} a & b \\ c & d \end{pmatrix}^{-1} = \frac{1}{ad-bc}\begin{pmatrix} d & -b \\ -c & a \end{pmatrix} \tag{7}$$

Punto 2

6.1 Definition Let $[a,b]$ be a given interval. By a *partition* P of $[a,b]$ we mean a finite set of points $x_0, x_1, ..., x_n$, where

$$a = x_0 \leq x_1 \leq ... \leq x_{n-1} \leq x_n = b \tag{8}$$

We write

$$\Delta x_i = x_i - x_{i-1}\,(i = 1, ..., n) \tag{9}$$

Punto 3

With fame I become more and more stupid, which of course is a very common phenomenon.
A. Einstein to Heinrich Zannger, December 24, 1919

With fame I become more and more stupid, which of course is a very common phenomenon.
A. Einstein to Heinrich Zannger, December 24, 1919

With fame I become more and more stupid, which of course is a very common phenomenon.
A. Einstein to Heinrich Zannger, December 24, 1919