Homework 5 and exercises

Joseph Edrei Moreno Cruz
Física Computacional 1

October 2, 2017

Ejercicios Diapositiva 8

$$\cos^2\theta + \sin^2\theta = 1$$

$$\sqrt{2} \approx 1.414 \qquad \sqrt[3]{2} \approx 1.260$$

$$e^{\pi i} = 1$$

$$\frac{\partial^2 f}{\partial x \partial y}$$

$$F_n = F_{n-1} + F_{n-2}, \qquad n \geq 0$$

$$A = B \quad \text{if and only if} \quad A \subseteq B \quad \text{and} \quad A \supseteq B$$

Ejercicios Diapositiva 10

$$\begin{aligned} x &= r\cos\phi\sin\theta \\ y &= r\sin\phi\sin\theta \\ z &= r\cos\theta \end{aligned}$$

$$\begin{aligned} x + 2y - 3z &= -11 \\ y \ \ + z &= \ \ 11 \\ z &= \ \ 21 \end{aligned}$$

F_2^2 and F_2^2.
x_1^y, x_1^y, and x^{y_1}.

$$henry = 1.113 \times 10^{-12} sec^2/cm$$

The equation

$$ax^2 + bx + c$$

has as solution

$$x_{12} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$\epsilon > 0 \tag{1}$$

From condition (1) follows...

Ejercicios Diapositiva Parte 2

$$\mathbf{A} = \begin{pmatrix} a+b+c & uv \\ a+b & u+v \end{pmatrix} \begin{vmatrix} 30 & 7 \\ 3 & 17 \end{vmatrix} \qquad A = \begin{pmatrix} a_{11} & a_{12} & \dots & a_{1n} \\ a_{21} & a_{22} & \dots & a_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ a_{m1} & a_{m2} & \dots & a_{mn} \end{pmatrix}$$

$$\text{i}f \quad \mathbf{v} = \begin{pmatrix} v_1, & \dots, & v_n \end{pmatrix} \quad then \quad \mathbf{v}^t = \begin{pmatrix} v_1 \\ \vdots \\ v_n \end{pmatrix}$$