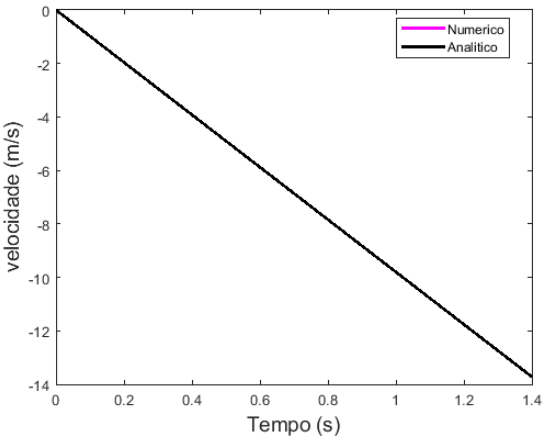
Física Computacional

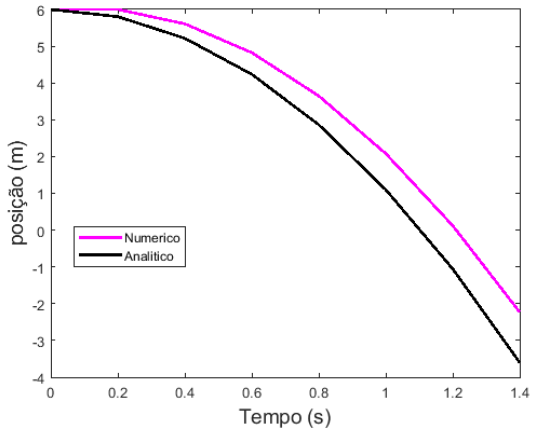
TRABALHO 1 –Soluções

Problema 1.1

A_QUEDA DA PEDRA

d) soluções obtidas para h=0.2





Instante em que chega ao solo = 1.210204 s

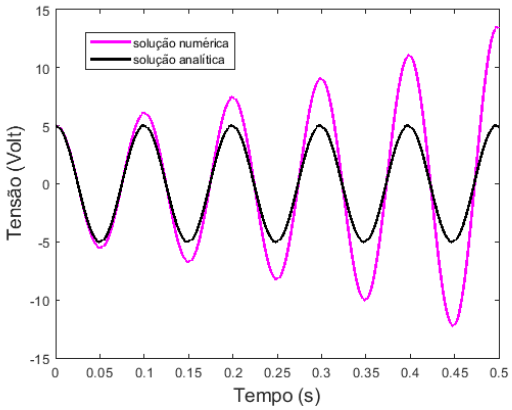
Velocidade com que chega ao solo = -11.860000 s

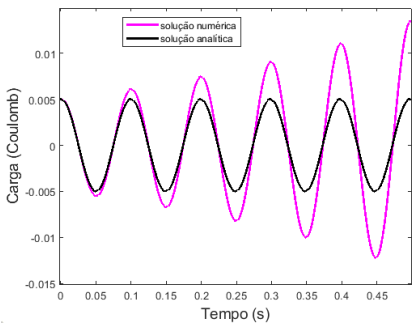
Problema 1.2

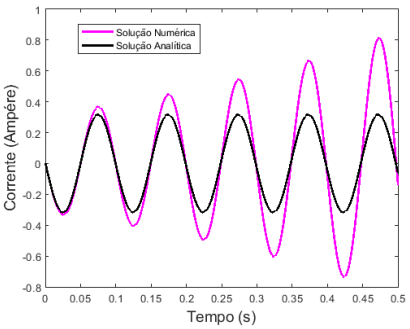
B_OSCILADOR HARMÓNICO SIMPLES (circuito LC – Método de Euler)

d) Soluções obtidas para h=0.001

Period_Teórico=2*pi/W = 0.0993



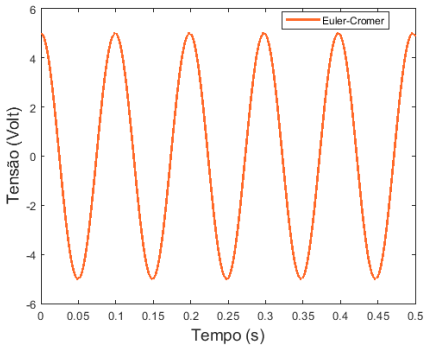


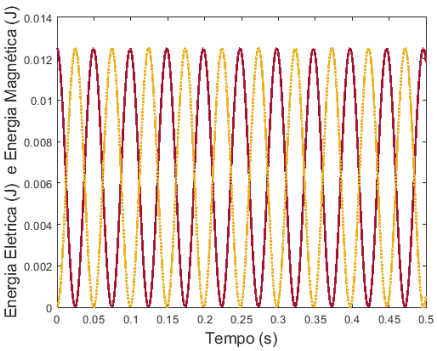


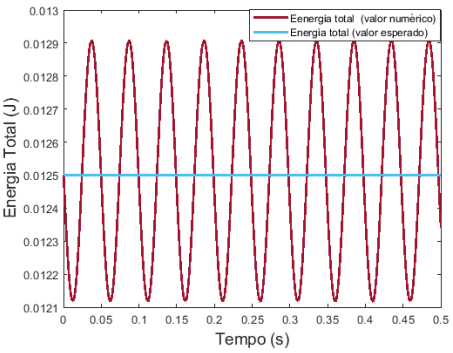
Problema 1.3

B_OSCILADOR HARMÓNICO SIMPLES (circuito LC – Método de Euler-Cromer)

b) Soluções obtidas para h=0.001



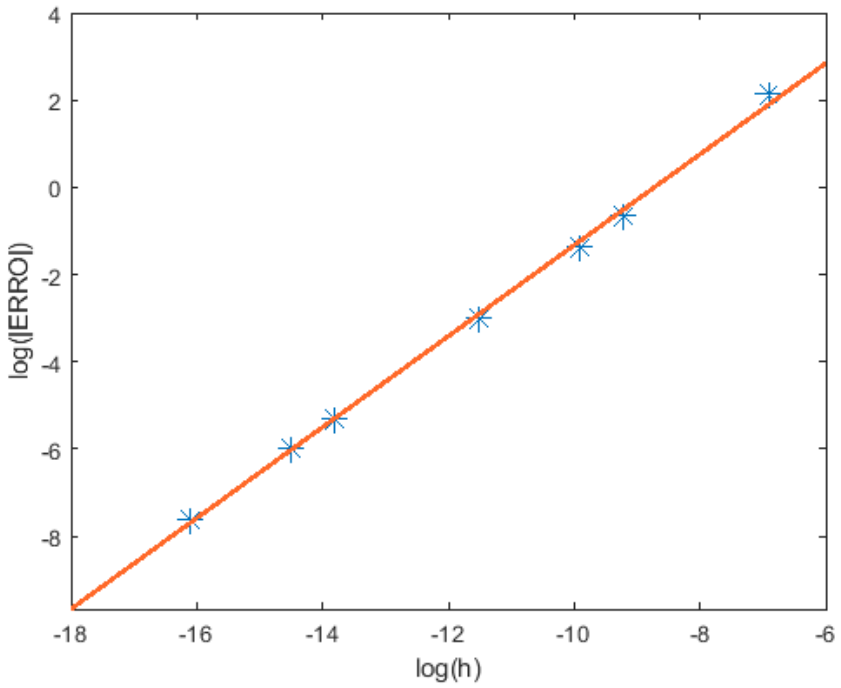




Problema 1.4

B_OSCILADOR HARMÓNICO SIMPLES (circuito LC – Ordem do Método de Euler)

Erro Gobal do método de Euler



m = 1.0428 b = 9.0997