```
delta_t = 0.0001;
t = 0 : delta_t : 10;

x = zeros(1, length(t));
v = zeros(1, length(t));

x(1) = 1.; % deplasarea initiala
v(1) = 3.; % viteza initiala
b = 0.5; % coeficientul de proportionalitate
m = 1.;  % masa greutatii
k = 6.;  % constanta de elasticitate

depl_x = @(x, v) -b/m*v - k/m*x;

for i = 1 : length(t) - 1
    x(i+1) = x(i) + delta_t * v(i);
    v(i+1) = v(i) + delta_t * depl_x(x(i), v(i));
end

plot(t, x, 'r-');
xlabel('t,s');
ylabel('x0 = 1, v0 = 3, b = 0.5, m = 1, k = 6');
legend('deplasarea');
axis([0, 10, -1.2, 1.7]);
grid('on');
title('Graficul oscilatiilor armonice');
```