```matlab
function [dz] = qc_pl_cnom(t,z,ZR)

% ---------------------------------------------
% Quarter-car model - Passive linear damping
% Nominal damping coefficient
% ---------------------------------------------

z1  = z(1);  % Sprung mass displacement
z2  = z(2);  % Unsprung mass displacement
dz1 = z(3);  % Sprung mass velocity
dz2 = z(4);  % Unsprung mass velocity
zr  = ZR(t); % Road elevation

% Fill in parameters and equations to
% calculate the accelerations of the
% sprung and unsprung mass.

ms = 400;
mus = 40;
ks = 30e3;
kt = 200e3;
c_nom = 1500;

ddz1 = (-c_nom*(dz1-dz2)-ks*(z1-z2))/ms; % Sprung mass acceleration
ddz2 = (kt*zr-c_nom*(dz2-dz1)-ks*(z2-z1)-kt*z2)/mus; % Unsprung mass acceleration

dz = [dz1 dz2 ddz1 ddz2]';
```