```
function [K0, A, s_y0] = eqivalent_truss(mg, T0, Ry0, L, E0, g)
  % Takes in SDOF system with properties
     % mg; Weight
     % T0; Natural period
     % Ry0;  Yeild Strength
     % L; Length
     % E0; Elastic stiffness
     % g ; Gravitational constant
  % Returns the structural parameter of equivalent Truss
      % K0; stiffness
      % A; Area
      % s_y0; Initial Yeilding stress
   K0 = 4*pi^2*mg/g/T0^2; % kip/in; stiffness
   A = K0*L/E0; % in^2
   s_y0 = Ry0/A; % ksi
end
```