```
clear
V0 = 100;                    % initial velocity
n=200;                        % number of subintervals
dt = 0.1;                     % length (time) of each subinterval

p(1) = 10;                   % initial position
t(1) = 0;                     % initial time

for i = 2:n+1                 % go till end of subinterval n = start of subinterval
n+1
  v = -10*t(i - 1) + V0;      % compute velocity at start of subinterval i - 1
  p(i) = p(i - 1) + dt*v;     % project position at start of subinterval i
  t(i) = t(i - 1) + dt;      % time at start of subinterval i
end

plot(t, p)
```