>> T = 400;

>> x =150;

>> xx = [150];

>> tt = [0];

>> t=0;

>> ev\_list = inf\*ones(3,2);

>> ev\_list(1, :) = [7 + 3\*rand, 1];

>> ev\_list(2, :) = [25 + 10\*rand, 2];

>> ev\_list(3, :) = [-log(rand), 3];

>> ev\_list = sortrows(ev\_list, 1);

>> while t<T

t = ev\_list(1,1);

ev\_type = ev\_list(1, 2);

switch ev\_type

case 1

x = x + 16\*(-log(rand));

ev\_list(1, :) = [7 + 3\*rand + t, 1];

case 2

x = x + 100;

ev\_list(1, :) = [25 + 10\*rand + t, 2];

case 3

x = x - (5 + randn);

ev\_list(1, :) = [-log(rand) + t, 3];

end

ev\_list = sortrows(ev\_list, 1);

xx = [xx, x];

tt = [tt, t];

end

>> plot(tt, xx)