% In this mfile; we investigate the periodic character of the

% solutions of the difference equation

% x(n+1)=(2\*x(n)+3\*x(n-2))/(x(n)+x(n-2)).

M(1)=12

M(2)=7

M(3)=9

for i=5:1000,

M(i+1)=( (2\*M(i)+3\*M(i-2))/(M(i)+M(i-2)));

end

% Now plot the first 200 values of the solution

z=1:100;

plot(z,M(z));

grid on

xlabel('n');

ylabel('x(n)');

title('Le graph de');