```
clc;
clear;
clear all;


lags = 1;

tf = 500;
t = linspace(0, tf, 1000);


sol3 = dde23(@ddefunc3, lags, @uhist, t);
sol4 = dde23(@ddefunc4, lags, @uhist, t);
sol5 = dde23(@ddefunc5, lags, @uhist, t);

t3 = sol3.x;
u  = sol3.y;
t4 = sol4.x;
u2  = sol4.y;
t5 = sol5.x;
u3  = sol5.y;
figure(2);
plot(t3,u);
hold on
plot(t4,u2);
hold on
plot(t5,u3);
hold off
title('du/dx solutions')
xlabel('x')
ylabel('u(x)')
legend('\lambda = \pi/2-.01', '\lambda = \pi/2',
'\lambda = \pi/2+. 01','location','northwest')
axis([0,tf,-3,3])
grid


function du = ddefunc3(t, u, UL)
lam = pi/2 - .01;
  du = -lam * UL;
end
function du2 = ddefunc4(t, u, UL)
    lam = pi/2;
    du2 = -lam * UL;
end
function du3 = ddefunc5(t, u, UL)
   lam = pi/2 + .01;
   du3 = -lam * UL;
 end

function u = uhist(t)
   u = .5;
 end
```

```
clc;
clear;
clear all;


lags = 1;

tf = 30;
t = linspace(0, tf, 1000);


sol3   =   dde23(@ddefunc3,   lags,   @uhist,   t);
sol4  = dde23(@ddefunc4,    lags,    @uhist,    t);
sol5    = dde23(@ddefunc5, lags, @uhist, t);

t3 = sol3.x;
u  = sol3.y;
t4 = sol4.x;
u2  = sol4.y;
t5 = sol5.x;
u3  = sol5.y;
figure(2);
plot(t3,u);
hold on
plot(t4,u2);
hold on
plot(t5,u3);
hold off
title('du/dx solutions')
xlabel('x')
ylabel('u(x)')
legend('\lambda = \pi/2-.01', '\lambda = \pi/2',
'\lambda = \pi/2+. 01','location','northwest')
axis([0,tf,-3,3])
grid


function du = ddefunc3(t, u, UL)
    lam = pi/2 - .01;
    du = -lam * UL;
  end
  function du2 = ddefunc4(t, u, UL)

       lam = pi/2;

       du2 = -lam * UL;

   end

   function du3 = ddefunc5(t, u, UL)
      lam = pi/2 + .01;

      du3 = -lam * UL;

    end

    function u = uhist(t)

    u = .5;

    end
```