

```

clear all;
close all;
x=[1 1 -1 -1;1 -1 1 -1];
t= [1 -1 -1 -1];
w=[0 0];
b=0;
for i =1:4
    for j=1:2
        w(j)=w(j)+t(i) * x(j,i);
    end
    b=b+t(i);
end
disp('final weigth monx:');
disp(w);
disp('final bios value');
disp(b);
plot( x(1 ,1 ), 'or' , 'markersize' ,20, 'markerfaceColor',[0 0 1]
) ;
    hold on;
    plot ( x(1 ,2 ),x( 2,2 ) , 'or' , 'markersize' ,20,
'markerfaceColor',[1 0 0]) ;
    hold on;
    plot ( x(1 ,3 ),x(2,3), 'or' , 'markersize' ,20,
'markerfaceColor',[1 0 0] );
    hold on;
    plot ( x(1 ,4 ),x(2,4), 'or' , 'markersize' ,20,
'markerfaceColor',[1 0 0]) ;
    hold on;

%draw
m= -w(1 )/ w(2) ;
c= -b/w(2);
x1= linspace (-2,2,100);
x2= (m*x1)+c;
plot (x2,x1,'r');
axis ( [-2 2 -2 2] );

```