```
function[cost,x]=northwest_corner(cost_matrix, supply, demand)
   [m,n]=size(cost_matrix);
   x=zeros(m,n);
   i=1;
   j=1;
   while i<=m && j<=n
      if supply(i)<demand(j)
         x(i,j)=supply(i);
         demand(j)=demand(j)-supply(i);
         supply(i)=0;
         i=i+1;
      elseif supply(i)>demand(j)
         x(i,j)=demand(j);
         supply(i)=supply(i)-demand(j);
         demand(j)=0;
         j=j+1;
      else
         x(i,j)=supply(i);
         supply(i)=0;
         demand(j)=0;
         i=i+1;
         j=j+1;
      end
   end
   cost=sum(sum(x.*cost_matrix));
```

```
end

cost_matrix=[4,6,8;5,7,6;8,6,9];

supply=[20;30;50];

demand=[30,20,50];

[cost,x]=northwest_corner(cost_matrix,supply,demand);

disp(cost);

disp(x);
```