v1=10;

v2=100;

v3=40;

v4=0;

n=11;

m=16;

A=zeros(n,m);

for i=2:m-1

A(1,i)=v3;

end

for i=2:m-1

A(n,i)=v1;

end

for i=2:n-1

A(i,m)=v2;

end

for i=2:n-1

A(i,1)=v4;

end

A(1,1)=(v4+v3)/2;

A(1,m)=(v2+v3)/2;

A(n,m)=(v2+v1)/2;

A(n,1)=(v4+v1)/2;

for k=1:200

for i=2:n-1

for j=2:m-1

A(i,j)=(A(i,j+1)+A(i,j-1)+A(i+1,j)+A(i-1,j))/4;

end

end

end

display(A)

A(6,6)

A(3,9)

A(5,11)

A(9,9)