A3)

```
clc
clear
A=[4.63 -1.21 3.22;-3.07 5.48 2.11;1.26 3.11 4.57];
B=[2.22;-3.17;5.11];
tol = 0.001;
n=3;
error = 1;
x = zeros(1,n);
xold = zeros(1,n);
while error > tol
      for i=1:n
            xold(i) = x(i);
            sum =0;
            for j=1:n
                  if(i~=j)
                  sum = sum + A(i,j)*x(j);
            end
      end
      x(i) = (B(i,:) - sum)/A(i,i);
end
error = abs(x(i)-xold(i));
end
disp(x)
```

```
  -8.9807    -9.4762    10.0430
```

A4)

```
clc
clear
A=[4 1 -1 1;1 4 -1 -1;-1 -1 5 1;1 -1 1 3];
B=[-2;-1;0;1];
tol = 0.001;
w = 1.2;
n=4;
error = 1;
x = zeros(1,n);
xold = zeros(1,n);
while error > tol
      for i=1:n
            xold(i) = x(i);
            sum =0;
            for j=1:n
                  if(i~=j)
                  sum = sum + A(i,j)*x(j);
            end
      end
      x(i) = (1-w)*xold(i) + (w*(B(i,:) - sum))/A(i,i);
end
error = abs(x(i)-xold(i));
end
disp(x)
```

```
  -0.7540    -0.0404    -0.2808    0.6918
```