

```
A = [0.8 , -0.4, 0;  
      -0.4 , 0.8 , -0.4;  
      0, -0.4, 0.8 ];  
B = [41;25;105];  
  
n = length(A);  
  
Xf = zeros(n,1);  
Xg = zeros(n,1);  
  
error = 0.000001;  
w = 1.2;  
  
while 1>0  
    for i = 1:n  
        sum = 0;  
        for j = 1: n  
            if ( i ~= j)  
                sum = sum + (A(i,j)*Xf(j));  
            end  
        end  
  
        Xf(i) = Xg(i);  
        Xg(i) = (B(i) - sum)/A(i,i) ;  
        Xf(i) = Xf(i) + w*(Xg(i) - Xf(i));  
    end  
    if abs((Xg - Xf)/Xf) < error  
        break;  
    end  
end  
  
Xf
```