
```
function [x] = myIDFT(X,N)
% This function will calculate the inverse discrete fourier transform
% (IDFT) of N-point DFT sequence X(k)

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x=zeros(1,N); % initializing output

% main loop algorithm to calculate IDFT
for n=1:N
    sum=0;
    for k=1:N
        sum=sum+(X(k).*(exp(1j*2*pi*(k-1)*(n-1)/N)));
    end
    sum=sum/N;
    x(n)=sum;
end

x=abs(x);

end
```

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