function xc = residual(n)

% Residual arising in class example

A = eye(n);
b = ones(n,1);
b(n-1,1) = 2.0;
b(n,1) = 0;

for i = 1:n
    A(i,n) = 1.0;
    for j = 1:i-1
        A(i,j) = -1.0;
    end;
end;

xc = A \ b;

r = (b - A * xc)