```
function x = Tridiag(e,f,g,r)
% Tridiag: Tridiagonal equation solver banded system
%   x = Tridiag(e,f,g,r): Tridiagonal system solver.
% input:
%   e = subdiagonal vector
%   f = diagonal vector
%   g = superdiagonal vector
%   r = right hand side vector
% output:
%   x = solution vector
n=length(f);
% forward elimination
for k = 2:n          (n-1)
  factor = e(k)/f(k-1);            1
  f(k) = f(k) - factor*g(k-1);    2
  r(k) = r(k) - factor*r(k-1);    2
end
% back substitution
x(n) = r(n)/f(n);  1
for k = n-1:-1:1    (n-1)
  x(k) = (r(k)-g(k)*x(k+1))/f(k);
end                 1 + 1 + 1 = 3
```

$$5(n-1)$$
$$+\ \ 3(n-1)$$
$$+\ \ \ 1$$
$$\overline{}$$
$$8(n-1) + 1$$

$$\boxed{8(n-1) + 1}$$